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Winning the cuts war

The banners have been rolled up again and the special trains have returned home after the "Day of Action" organized in London last Wednesday by the Association of University Teachers and other trade unions with members working in the universities. Even the most hostile, outside universities, and the most cynical within them, will find it difficult to deny that it was a great success.

The lobby, and more especially the debate in the House of Commons which it provoked, showed that the universities may have fallen on hard times but they can still mount a fair old lobby. The turnout of AUT members was impressive. The procession of Opposition spokesmen across the platforms at the Central and Caxton Halls, all competing to anathematize the Government's cuts in university spending, was more impressive still. Five Conservative MPs abstained, rather than voted against, the Opposition motion. Next day Mr William Waldegrave showed a new sensitivity to the universities' claim to have the cuts spread over a longer period. All in all, a very satisfactory performance.

But it would be silly, and harmful to the true cause of the universities and of higher education, to gloss over what was not achieved. The first difficulty is what happens next? The lobbyists have departed, the writers of letters to MPs will tire (or their MPs will take less notice), the pressure from the Treasury will quickly reassert itself, and the fiercely defensive solidarity of Conservative MPs has been maintained.

The second difficulty is that the faint signs of flexibility by the Government on the timing of the cuts may weaken the opposition to cuts within the universities. To be blunt what Sir Keith Joseph and Mr Waldegrave seem to be hinting is this: if universities accept the end of Government policy, a smaller, more selective, and less well resourced higher education system, then the Government may be prepared to be

Sensible start for interim body

Without becoming too deeply involved in the semiology of the acronyms of educes, it is nevertheless fascinating to watch the changes that have occurred over the past year in the terms the Department of Education and Science has used to describe the polytechnic and college sector. It started the year as "advanced further education", the traditional description which emphasized the totality of further education and the merely technical nature of the exception represented by the polytechnics and other higher education colleges. Whatever the merit of such a description in principle and however worthy the aspiration it represented, it was clearly out of date in the post-Crosland age.

Its rather startling successor last January turned out to be "public sector higher education", a description not without difficulty and ambiguity but one which indicated very clearly a clean break between further and higher education and also, by failing to mention local authorities, showed that, according to this policy map at any rate, their remaining influence was soon to be removed. The trouble with this second description was that it too was misleading. It failed to take into account the many links remaining between polytechnics and higher education colleges, and the rest of further education. Even those who welcomed a clear and unambiguous demarcation had to admit that PSHE was a case of trying to run before one could walk, while those who disliked the drift towards centralization pointed out that with the develop-

ment of continuing education the present distinction between higher and further education would tend to dissolve rather than harden.

So eventually last week a new description was produced to fit the Government's proposal for an interim national body, "local authorities, higher education". It is perhaps the best compromise. By keeping local authorities in, in the title and in the game, it implies that the polytechnics and colleges will remain for the time being part of a total education service, not a separate and superior sector on the university pattern. But by substituting "higher education" for "advanced further education" the new term recognizes the distinction and maturity of the polytechnics and colleges.

It is, of course, much easier to get the semiology right than to get the policy right, to send out the right signals than to make the best decisions. At this stage only the most tentative judgment is possible on the Government's proposal. What can be safely said is that it must be better than the present chaos in which expenditure decisions are taken without being informed by any academic assessment either of existing quality or further direction and then are swallowed up by larger decisions about local authority expenditure to reappear in an often unrecognizable and always unpredictable form.

However, there is a considerable danger that the interim national body will simply validate and so make more palatable harsh decisions about resources made elsewhere. It is probable that the new body like the University Grants Committee will find itself involved in one-way communication with Whitehall, required to translate general orders into particular orders but unable to give government to listen seriously to its advice (especially if that advice goes against the cuts grain).

Laurie Taylor



As your vice chancellor, I have been extremely encouraged in recent months by the response that you have all made to the serious financial problems which this university will face in the coming years.

I was greatly impressed, as you know, by the speed with which the three celebrated paintings in the administrative block were put up for auction, even if I did feel at the time that they might have been secured for this purpose by something a little less melodramatic than a masked raiding party. But on the whole you were undoubtedly right to insist that the loss of an old Constable and a couple of Lowrys was a small price to pay for the retention of two academic posts in the department of Serbian studies.

And what could have been more appropriate than the replacement of some of the more dated furniture in this very council chamber by these thoroughly serviceable Kenwyn Stacka-Units. What a welcome surprise it was to learn that a mere vanload of tables and chairs was equivalent to a three-year term of employment for our esteemed reader in philosophy.

Neither did I have anything other than the most minor aesthetic doubts about the general wisdom of saving three lectureships in the social sciences by the sale of six of the decorative Ionic columns which previously graced the entrance to the main examination hall. You will also recall the relative equanimity with which I viewed the uprooting and sale of plants and turf from the decorative gardens scattered throughout the campus. (How pleasant incidentally, even when spring is upon us once again, to think that their absence means that we will be able to enjoy the presence of Professor Sokolov for at least another year.)

In fact, on a number of occasions, I have become personally aware of the very real benefits which accrue from unaccustomed use of university assets. It was impossible, for example, to sit through the recent preview of the Theatre Royal's *Mother Goose* without recognizing the contribution which had been made to the overall panorama by senate's negotiated sale of doctoral gowns. And surely, the slight loss of colour in coming years in a small price to pay for the retention of our deputy librarian.

It is true that I have not spoken forcibly on behalf of all such projects. The long-term effect of the proposed sale of student study-bedrooms seemed a little uncertain, and perhaps a rather traditional attitude towards simony may have prompted by abstention on the motion to strip the lead from the roof of the university chaplaincy building. But no one, I'm certain, felt happier than I that these two ventures helped to make tenure a living reality for at least one biology lecturer.

But - and this is the reason for my lengthy recitation of former agreements with the board's decisions - there does come a point at which immediate profit cannot be our only goal. I am not unsympathetic to the claims of the part-time lecturer in the social sciences but I wonder if the university in which they hope to remain will be actually worthy of them if it is no longer dignified by that central element which so loudly proclaims its very existence.

Gentlemen, I most strongly oppose the present motion that the ceremonial mace should now be melted down.

The Times Higher Education Supplement

December 4, 1981 No 474 Price 45p

£100m slimming fund likely for universities

by Staff Reporters

The Government is now more likely to set up a special fund of £100m to slim down the universities than to spread the cuts over five years instead of three. This is considered the likely outcome of its second thoughts on university expenditure.

Such a fund would be used for redundancies and other measures to trim the system. It would probably be under the control of the University Grants Committee, with close residential involvement, and not be submitted to individual universities. Although the bulk of the money would be used to compensate redundant staff, some might go to mitigate the full rigour of the cuts in selected institutions, either of acknowledged excellence or which have been particularly hard hit by the rise in overseas students' fees. Suitable candidates might be Imperial College of Science, Technology and Medicine.

At the Department of Education and Science are now preparing the best possible case to put to the Treasury for the creation of such a fund. Vital evidence will be detailed information on the scale of redundancy and other voluntary redundancies, the need for compulsory redundancies, and the scope for other savings which individual uni-

versities have been asked to send to the UGC by the end of January. They then hope that armed with evidence of the unacceptable cost of precipitate contraction, they will be able to squeeze more money out of the Treasury. They will argue that whatever happens the Government will have to pay the bill, and that it is better to establish an orderly process for the controlled run-down of the system rather than face inevitably damaging controversy as institutions are forced into bankruptcy and court decisions produce unpredictable and uncontrollable financial consequences.

It now seems clear that the DES's original intention to appeal to the Treasury for the cuts to be spread over five years has been abandoned. Ministers accepted that under present political conditions such an appeal to the medium term was bound to fail.

Although the difference between a £100m slimming-down fund and a relaxation of the cuts timetable with similar expenditure consequences may appear to be essentially presentational, a vital ingredient of the favoured plan is that a fund would remain under central control. Ministers fear that any general relaxation might simply be used to put off the evil day in many universities.

As most universities would have to give at least six months' notice to any staff they intended to make redundant, any reprieve would have to come before the end of March. In any case the DES has to meet a tight Whitehall timetable which suggests an even earlier deadline for any decision, probably the end of the January.

UGC chairman Dr Edward Parkes has told vice chancellors that it would be "extremely difficult" to convince Sir Keith Joseph, Secretary of State for Education, that it would not cost more to run down the system more slowly although he was preparing figures on this point.

At the last meeting between representatives of the UGC and the Committee of Vice Chancellors and Principals, Dr Parkes stressed, according to confidential minutes, that "ministers would also require assurance that universities would in fact eventually reduce their activities to the level envisaged by the UGC the university system would have to prove carrying out the planned restructuring and the associated reduction in staff numbers."

Figures privately prepared by the CVC show that the universities as a whole could accommodate the reduction of £26,600 residual income threshold and

London colleges direct funding talks

by Ngao Crequr

Informal meetings have been held this week between heads of schools at London University to discuss whether they should follow University College's lead and apply for direct funding from the University Grants Committee.

The heads are anxious to work out a common line on the UC initiative either as one body to resist the proposal when it goes to senate and court, or to follow suit. It is widely believed that if UC is successful the London School of Economics, whose director, Professor Ralf Dahrendorf, has said he is considering the possibility would make a similar move.

If these two went their own way and as Imperial College is already directly funded, the nature of London as a federal university would be under threat. The

bigger schools in particular feel constrained by the university's one year planning horizons, and some of the smaller schools feel they have been at a disadvantage in the succession of internal and external reviews of university performance.

UC feels it would emerge with a healthier grant allocation if it received its money directly from the UGC and there are few colleges which are happy, though for different reasons, about the block grant allocation system employed by London.

Much will depend upon the attitude of Professor Randolph Quirk, vice chancellor of London University, himself from University College. Without commenting directly on the move, he said this week, "We must not fall into the trap of thinking that change in the mechanism of funding leads to break-up in itself."



The cubist movement comes to college - Dr David Singmaster, of the Polytechnic of the South Bank, is pictured with a display of Rubik cubes and other mathematical games at the West London Institute for Higher Education. Dr Singmaster was presenting a lecture this week on the mathematical properties and educational uses of the cube and similar toys.

Grant rise to be held to 4%

by David Jobbins

Ministers have ruled out immediate changes in the student awards system but the increase for 1982-83 is to be 4 per cent.

In his statement to the Commons the Chancellor Sir Geoffrey Howe, also announced that the scales for parental contributions would remain unchanged and that the current £410 minimum award paid to all students would not be inflation-proofed.

The announcement means that more parents will come above the £26,600 residual income threshold and

those already making contributions will be expected to pay more.

Confirmation that proposals for abolition of the £410 minimum award and other radical proposals had been shelved came in the Commons this week from Mr William Waldegrave, education under-secretary. He told MPs that Sir Keith Joseph "has at present no plans to make changes in the structure of the award system."

But he added that ministers were reconsidering the whole question of student loans.

Proposals to curb college government are put on ice

by John O'Leary

Recommendations for changes in local colleges over colleges and polytechnics have been put on ice following disagreement between local authorities and the Department of Education and Science.

A draft report had been prepared by a working party on college government for more than a year. But it has not been circulated by the DES and a meeting of the working party expected to reach final conclusions has been cancelled.

The initiative for a review of instruments and articles governing colleges and polytechnics came from a controversial analysis of existing controls produced by the Council of Local Education Authorities last year. Ministers were asked to give authorities new powers over college budgets, the employment of staff and the approval of courses.

But, although the group of civil servants and local authority representatives were able to agree on some areas where change would be desirable and politically feasible, the department was reluctant to acknowledge the necessity for new regulations under its own proposal for a permanent national body.

The DES said this week that the group would be reconvened next year but that its recommendations had been overtaken by events with the announcement of interim arrangements for national planning of the powers of governing bodies in the public sector.

A discussion document would be produced after consultation with the new body. Among the group were local authority representatives of responsibility for the employment and deployment of staff and full, formal financial control of institutions. Other areas, such as the responsibilities of governors were considered too sensitive for any change without detailed and lengthy consultation with institutional representatives and unions.

College principals restated their strong opposition to any weakening of the powers of governing bodies when they met Mr William Waldegrave, under-secretary for higher education, last week. They called instead for increases in their autonomy to protect institutional freedom.

Leader, back page.

John O'Leary

Libraries 'starved of books'

by Charlotte Barry

Book spending in polytechnics slumped for the second year running in 1980-81 to only £7m, according to the latest figures released by the Department of Education and Science.

This 19 per cent decline in spending by polytechnic libraries followed a drop of 14 per cent in 1979-80. Libraries in colleges of further education also suffered but showed a slight improvement over the previous year. Spending last year fell by seven per cent to £9m, while in 1979-80 the decline was 11 per cent.

The slump in polytechnic book buying is expected to have levelled off slightly this year when the final figures become available in January. But it is feared that a further round of cuts next year could have a disastrous effect on living standards.

Mr John Cowley, secretary of the Council of Polytechnic Libraries, said: "We are expecting the deterioration to continue this year but not to the same extent. We are extremely worried about next year."

The effects of the cuts on polytechnic libraries has been patchy, according to the council. Some have been forced to cut staff by between 10 and 20 per cent, leading to a reduction in the quality of service and shorter opening hours.

Many libraries, which have an average annual budget of £250,000, have protected the book buying fund at the expense of other services such as the binding of journals.

Mr John Davies, director of the University, College and Professional Publishers Council, warned against subjecting book spending to another round of cuts. "This aspect of higher and further education has surely been eroded to the very limit over the past two years," he said.

"Books are central and integral to teaching in higher education. If our students are starved of books now, the next generation is being starved of the knowledge necessary to succeed in tomorrow's world."

Undergraduates get raw deal

by Ngaio Crequer

The growth of research may have weakened undergraduate education, Professor Sir Bruce Williams, director of the Technical Change Centre, warned this week.

Sir Bruce called for a review of the effects of research in the Charles Carter lecture on "A reconsideration of ends and means in higher education" at Lancaster University. There had been too much concentration on the input rather than output of education, he said.

It was time to review the dominance of single honours degrees, the academic drift towards the university pattern in the public sector, and the influence of universities on specialization in the schools, he said.

Over the past 25 years he had been increasingly concerned by the effects of greater emphasis on research and the increase in the size of

departments on undergraduate education. More and more courses were broken up and given by different specialists so that teaching was more impersonal and less integrated.

The small rise in numbers was partly due to a failure to provide a sufficient variety of programmes in secondary and higher education. The post-war expansion of education had not made a major contribution to equality because of staff attitudes and the inability of local and central Government to be clear about objectives.

Sir Bruce said a transition from higher education plotting to planning would need:

- more central planning of the public sector and more coordination with universities. The plan should not be based on manpower needs;
- a public sector grants committee (PSGC) which should inform each

institution of the range of programmes, level of courses, distribution of students, and financial formulae and fees structures as measures of control;

- chairmen or women of the UGC and PSGC to discuss draft plans before submitting them to the Government and after financial allocations are known to establish a broad coordination of programmes;
- university and college heads to meet and report on the range and balance of programmes and needs in their cities;
- greater opportunities for movement between institutions and programmes by the provision of "performance ladders";
- funding which recognized the importance of non-award programmes. University research support should enable institutions to increase their ratios of academic staff to students.

Purse strings choking research

by Robin McKie
Science Correspondent

University researchers have now to spend so much time seeking funds they can no longer consider commitments to long-term projects, the president of the Royal Society said this week.

In his address to the anniversary meeting of the society, Sir Andrew Huxley said that although research councils were attempting to compensate for cash cut from university budgets, they could no longer back the amount of work they used to fund.

"More and more of a research worker's time is spent in writing grant applications and more and more of his colleagues' time goes in judging them," Sir Andrew said. This meant a researcher was discouraged from commitments to long-term projects, such as research into evolutionary studies which were causing considerable controversy among scientists at present.

"The dual support system to which we are entitled by our colleagues in other countries, has been reduced to a shadow of what it used to be, and is in danger of being totally obliterated under pressure from the cuts in university finance that were announced this year."

The almost total stoppage of new appointments caused by the cuts would also affect the medium-term future partly through its direct effects and also through discouraging a generation of young people from entering scientific research, Sir Andrew said.

And he added a plea that if it was found that universities could not cope with cuts, combined with salary rises and overseas student funding reductions, then "provided a university shows it is moving in the right direction," the Government should relax both the speed and severity of the cuts.

There was also a danger to scientific research in that raising departmental funds was an easy way of avoiding or reducing redundancies. "There is a temptation to cut out specialist minority fields which are expensive to the university but which are unique and need to be maintained from a national viewpoint. The need to maintain 'centres of excellence' was one aspect of the

News in brief

The wrong prescription on health charges

Negotiations should begin to reach more reciprocal agreements on health care, rather than going ahead with plans to introduce charges for foreign visitors and students, United Kingdom Council for Overseas Student Affairs urges in a report published this week.

In its report, *Overseas Students and the NHS: the Wrong Prescription*, the council argues that it would be folly for the Government to ignore reactions to full-cost fees. It would do better to restrict itself to improving administrative arrangements and guidance on existing regulations.

Officers of UKCOSA are seeking a meeting with Dr Gerard Vaughan, the health minister, to discuss the report, which is seen as a last attempt to persuade the Government to drop the plans. A working party still engaged in drawing up detailed proposals for introducing charges early next year.

Ministers judge membership row

Ministers are unlikely to accept the case for voluntary student union membership put forward by Manchester Polytechnic student Paul Soden.

In the Commons this week Mr William Waldegrave, under secretary for higher education, warned that withholding of part of the fees calculated to cover student union membership would be a difficult precedent to accept. "Students could then regard themselves free not to contribute that part of their fees covering departmental fees they do not use," he said.

Principal dies

Dr Lionel Butler, principal of Royal Holloway College, University of London, died last week, aged 57. Dr Butler had been principal since 1973 and was previously professor of medieval history at St Andrews University. He was chairman of the University Entrance Requirements Committee, and of London's library resources coordinating committee.

Work study

Britain's first postgraduate diploma in employment and planning has been launched by Middlesex Polytechnic. Seven of the first 12 students attending one day a week for the next year will work for local authorities, and they will be analysing the effect of economic trends on local employment problems.

Rector chosen

A financial consultant who lost his shirt during his electoral campaign has become rector of Aberdeen University. Mr Robert Perryman, who graduated from the university last session, beat the other two candidates, journalists James Cameron and Duncan Campbell, and entered wives' campaigner Erin Perryman.

Tax concession

Academics are being urged by the Publishers Association to take advantage of a ruling in the Court of Appeal, which appears to allow new tax advantages to the purchasers of books used for professional purposes. A letter from Mr John Davies, education director of the Association, drew attention to the case (*Mumby v. Farnham*) which enabled a barrister to claim book purchases as "capital advances."

Medical medal

Dr Larry Kricka, senior lecturer in the department of clinical chemistry at Birmingham University's medical school, has been awarded the silver medal from the Royal Society. The annual award is made to encourage young scientists. Dr Kricka's most recent work has involved designing a microcomputer-based assisted learning programme for clinical chemistry.

Police act at dawn to end poly sit-in

by David Jobbins

A massive police operation this week ended a 12-day occupation of the polytechnic of Central London, but student leaders warned they would continue direct action against cuts needed to eliminate a £600,000 deficit.

Scotland Yard would not discuss the police strength, but Mr Pat Bryden, the student union president, said 100 policemen had entered the Regent Street building at 5 am on Wednesday.

An estimated 100 students were huddled in the building where the police arrived. They had been expecting the court order obtained by the polytechnic for possession of the building to be executed more than a week ago, and had agreed to resist eviction passively. In the event, there was no trouble, Scotland Yard said.

The occupation has held up the work of the audit team sent in by the Inner London Education Authority to help the polytechnic draw up plans to eliminate the deficit. The authority also gave De Colin Adamson, the rector, an extension to the four weeks he has to find ways to achieving this by the summer of 1983. He has an extra eight days from the end of the occupation which prevented staff from getting to the polytechnic's finance office.

Mr Bryden said that if students had realised that officials needed to get at the books they would have allowed them in. "We are allowing finance office staff in to do the wages," he said.

In a letter to trade union representatives, Dr Adamson says he welcomes the decision by Mr John Bevan, ILEA's director of education, to send in the audit team.

"I and my colleagues consider that this exercise, whatever criticism of PCL may emerge, can only be of ultimate benefit to PCL."

The polytechnic was closed by last week's one day strike by some staff. Employees are to be paid for the day - but those unwilling to accept the money on grounds of conscience are being invited to give it to one of two charities - either the polytechnic nursery or a Camden community organization.

PCL unions who met Mr Neil Fletcher, chairman of ILEA's further and higher education subcommittee last Friday, were assured that the authority would be taking action in a matter of weeks. "I said I would regard it as a priority to get back to normality at the polytechnic by Christmas," he said.

The PCL occupation is likely to arise at this weekend's National Union of Students conference. In the shape of a no confidence motion in Mr David Aaronovitch, NUS president.

Students at North East London Polytechnic occupied one of the institution's major buildings in a 48-hour protest at the threatened cuts.

The university was conducting a ballot to decide whether to close the faculty of education, school of architecture and some departments. At Aston, the university has proposed a new early retirement scheme which would give up to 50 tenured lecturers an extra 35 per cent lump sum on top of existing compensation schemes. With three different schemes now in operation, Aston is approaching, by voluntary means, the number of staff it said it would need to shed.

Cambridge dons voted 694 to 205 to approve a financial programme for 1981/2 which involves some reduced spending and drawing on the university's reserves. Oxford has approved an end to undergraduate teaching in the honours school of agriculture and forestry.

Bath University, which had only a small cut in its recurrent grant, achieved a surplus this year of £132,000 and expects to be able to cope.

At Chelsea College, London, Sir Cyril Philips, chairman of the police complaints board, who was asked to chair an external review of the college's work, told senators that standards were comparable with any other institution in the country.

Salford University has written to all candidates telling them about courses which have been modified or discontinued. This year home applications went up by 10 per cent compared with the national increase of nearly 5 per cent.

He urged the Scottish principals to send the DES as much hard information as possible about prospective redundancies, jeopardised subjects, and the drop in student numbers.

"We have been bombarded with general argument, but the hard facts of what the cuts mean to each university have yet to appear," he said. "We are competitors for very scarce resources and if we are to get to those responsible for other Government social programmes and say we

allowed them in. "We are allowing finance office staff in to do the wages," he said.

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Scots principals say there is no money for redundancies

by Olga Wojtas and Ngaio Crequer

Scottish university principals have warned the Government that unless there is a change in policy, redundancy notices will have to go out in March, with the universities unable to pay compensation.

They told Mr William Waldegrave, under secretary for higher education, who attended a meeting of all Scottish principals, that by the end of the universities' financial year they would have used up their readily available resources and would be carrying deficits ranging from £80,000 to £1m.

Throughout Britain universities are grappling with the cuts. At Liverpool, Professor Robert Whelan, the vice chancellor, told court that the university faced a deficit of £5m by 1983-4 and would have to shed about 300 posts in the next three years.

"Even if we manage to avoid redundancies we shall still have a large number of posts frozen for some time to come," he said.

At Bristol, the vice chancellor, Sir Alec Morrison, told court that even with rigorous pruning and use of reserves, the annual deficit in 1983/4 would be £1.8m.

"We cannot get through this period and survive in the years ahead without shedding staff by forced dismissals... we estimate that, to be in balance by 1983/4, we shall have to lose in total about 400 staff, only 250 of whom will go through natural wastage."

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Union officials scatter a bag of seed corn on the pavement outside the Department of Education to symbolize the Government's destruction of Britain's future. On the right is Jim McArthur, chairman of the Inner London region of Naffhe. Second from the left is Mike Loosley, president of the Inner London Teachers' Association.

Colleges rally against cuts

The campaign mounted by college lecturers to underline the importance of higher education outside the universities intensified this week.

Dozens of rallies, meetings and exhibitions are being staged to show the role polytechnics and colleges play in the economic, industrial and social fabric of the country.

In London thousands of lecturers took part in a massive demonstration against Environment Secretary Mr Michael Heseltine's plans to curb local government spending. Forty-five colleges and four out of the five inner London polytechnics were closed following decisions from at least 50 of the 80 branches of the National Association of Teachers in Further and Higher Education to strike for the afternoon. Naffhe esti-

ated that 5500 of its 7000 members in the capital were involved in the protest.

In Manchester Mr David Triesman, chairman of Naffhe's HE committee, warned that the interim body to administer public sector colleges should not be turned into the "cutting arm of the Treasury". And the union's education secretary, Mrs Janey Rees, told a one day conference in London that the interim body was "doomed" if the Department of Education saw it merely in terms of rationalization.

"The Government must ensure it to become a credible body which can bring some order out of chaos in the management and financing of public sector HE," she said.

Work training plan devised Leader threatens to resign

A two-stage plan to make education and training available to all young workers has been drawn up by the Manpower Services Commission. It is to go to the Employment Secretary, who is due to announce in 10 days what the Government has decided to do about reforming and extending training as a whole.

The commission is going to start by expanding the existing small, unified vocational preparation programme to take 50,000 young workers by 1984-85. At the same time, it is setting up a high level task group, like the one which devised the Youth Opportunities Programme, to work out details and a timetable for a comprehensive scheme to cover all school leavers, whether they are starting work or unemployed.

The plans are contained in the commission's draft report on its consultations with industry, education, and other interests, on its New Training Initiative proposals. The NTT objectives - apprenticeship reform, vocational preparation for all young people, and the opening up of training of all kinds to adults - are strongly backed by the Government,

The National Union of Students' vice-president with responsibility for welfare matters is to resign if a planned 20 per cent cut in her budget goes ahead this weekend.

Ms Hank Hastings, the only Independent Left member of the executive, is to ask the NUS conference in Blackpool this weekend to back her in seeking only a token 4 per cent cut. "If the larger cut goes through I would have to implement it, and I am not prepared to oversee the destruction of the union's welfare work," she said.

An attempt by the former Conservative-controlled Kirklees Council four years ago to increase industrial representation on the governing body sparked off a storm of protest from governors, staff and students and the authority was told by the DES to "think again".

The polytechnic is still awaiting the report of an independent arbitrator on the dispute with the present council over allegations of maladministration by senior polytechnic staff.

Mr Ken Durrans, rector of the polytechnic, said he was unable to make any statement at this stage and warned that there would be a lengthy consultation period.

Councils' control challenged

by John O'Leary

The leader of the college principals, Mr Neil Merritt, last week issued a challenge to the local authorities over their continuing control of higher education.

Speaking at his college's degree ceremony in Ealing, Mr Merritt gave a warning that unless urgent action was taken to safeguard major institutions and courses in hundreds of other colleges, the gap between the public sector and the universities would widen. This would constitute

nothing less than a betrayal of present and future students.

Mr Merritt said: "If the local authorities are to discharge their new responsibilities effectively and thus retain their control of the major colleges and the polytechnics, then they must behave not as a collective Mr Bumble but more like Mr Magwitch."

Major colleges and polytechnics had to be properly sustained and the remainder made either part of centralized provision or an exclusively

local responsibility. Institutions such as Ealing College had much to lose, he said, because each year which passed without national planning resulted in cuts made without reference to quality or type of provision.

"For those in leadership of the local authorities the challenge is enormous," Mr Merritt said. "If their fight for control of higher education at its base has been one only for power, then all of us should be filled with pessimism."

Sir Keith to decide on APT issue soon

A final decision on the question of recognition for the Association of Polytechnic Teachers is expected soon.

Sir Keith Joseph, Secretary of State for Education, has invited the non-TUC union to put its case for a seat on the Birmingham further education committee, to help before he decides whether to confirm his predecessor's provisional decision in its favour - or to accept the complaints

by other unions that the effect would be disruptive on industrial relations.

Mr Len Murray, general secretary of the TUC, and Mr Peter Dawson, general secretary of the National Association of Teachers in Further and Higher Education, saw Sir Keith last week to press the case against recognition.

Since Mr Mark Carlisle announced this summer that he was minded to give APT a seat, civil

servants have been studying revised membership figures for all the unions in the further and higher education sector which exclude retired, student or unemployed lecturers.

In the Commons Conservative MPs Mr Michael Latham (Melton) and Mr Patrick Cormack (South West Staffordshire) both pressed Sir Keith to make an early decision.

But Labour MP Mr Stan Newsom (Harlow) said APT represented only

Government accused of closing door to opportunity

by Olga Wojtas
Scottish Correspondent

The Scottish Association of University Teachers has condemned the government for its "deliberate course of reducing educational opportunity for young Scottish people" when the number of potential Scottish students in higher education will not fall before 1992.

The AUT(S) has called on parents, which it says are potential future students, to persuade their MPs that "the future of Scotland depends on opening doors to education for

life - not reducing those opportunities that currently exist. The Robbins expansion in the 1960s was led by parents seeking increased educational opportunities for their children," says the association.

It has taken its figures from the Scottish Education Department, which regularly produces statistics on schoolchildren. Every child who will go to university in 1999 has already been born, the association points out, and every child who will go to university in 1998 is about to start secondary school.

Long-term planning for the univer-

sities should therefore not be too difficult, the AUT(S) says, but against this background of easily obtainable statistics, the universities are being contracted on a scale and at a pace which cannot be achieved within the objectives either of viable educational provision or even the Government's cost-saving.

The SED estimate includes a roughly constant intake of mature students, but the AUT(S) says that more than a million extra people have come on to the labour market over the past decade, and higher unemployment levels, earlier retire-

ment and mid-life retraining provide a challenging opportunity for higher education provision in the next 20 years.

"This is backed up by a further projection which shows that the population of Scotland will be the same in the year 2000 as it is now. It is just that the proportions will be different," the AUT(S) says.

The long-standing tradition of educational opportunity for all is under threat, it says, and the wealth-creating activities of research and industrial consultancy could also be badly damaged.

Kirklees presses poly for changes

by Charlotte Barry

Academic staff at Huddersfield Polytechnic are resisting proposals by Kirklees Council to alter the membership of the polytechnic's governing body.

The National Association of Teachers in Further and Higher Education said the proposals were "totally unacceptable".

A governing body subcommittee is looking at the plan put forward by local government officers.

Mr Harry Lahmers, secretary of the Naffhe coordinating committee, said: "They represent a massive negation of the principle of the autonomy of the institution, of higher education in the public sector and a positive reversal of college democracy."

The union opposes a proposal to include 12 council representatives on the governing body instead of the present 10. Nine members from industry, commerce and the professions would be appointed by the local authority, instead of by the governors, after consultation with the appropriate bodies.

The local authority wants to reduce the number of internally elected staff governors and have one from each of the five faculties and one elected by secret ballot among all academic staff. Naffhe and the staff assembly want five elected from the staff assembly and three from the academic board. At present four are from the academic board and two from the staff assembly.

The council also wants to reduce the number of elected representatives on the academic board from 15 to 10 and increase the ex-officio membership.

Naffhe is also concerned that the proposals make the polytechnic subject to direction outside the provisions of the Education Act, Department of Education and Science regulations and the articles of government.

An attempt by the former Conservative-controlled Kirklees Council four years ago to increase industrial representation on the governing body sparked off a storm of protest from governors, staff and students and the authority was told by the DES to "think again".

The polytechnic is still awaiting the report of an independent arbitrator on the dispute with the present council over allegations of maladministration by senior polytechnic staff.

Mr Ken Durrans, rector of the polytechnic, said he was unable to make any statement at this stage and warned that there would be a lengthy consultation period.

Courses

The Careers Research and Advisory Centre

CRAC

1982 COURSES

Future Patterns in Education, Training and Work
30-31 March
CAMBRIDGE

This conference has been planned to bring together academic staff and company personnel involved with the planning and future of sandwich and continuing education and industrial training.

Admissions to Higher Education

5-8 April

College of St. Paul and St. Mary, CHELTENHAM.

This annual CRAC course provides an opportunity for guidance and admissions staff to discuss admissions problems and practice, and to be informed about the implications for admissions of current trends in higher education and graduates employment.

For further details please apply to:

The conference Office, CRAC, Bateman Street, Cambridge CB2 1LZ, or telephone 0223 66911 (after 1.1.81 354551).

H229

Scientists must learn to tap EEC funds

by Robin McKie
Science Correspondent

Scientists in British universities are failing to attract their share of Common Market cash for research, a conference was warned in St Andrews this week. Mr Cyril Silver, head of the EEC's industrial research, said it was crucial that scientists learned how to tap this source - particularly as it had been proposed to double EEC research budgets over the next five years.

"Common Market research money is bitterly fought over by member countries. Nevertheless there is money available and I do not believe that British universities are getting enough of it," Mr Silver told the conference on "Financing of Research" organized by the Steering Committee for Staff Development at Scottish Universities.

He revealed that £150m was provided for research by the EEC last year. One-third of this went to the Community's four research centres; another third went on fusion research; and the rest was distributed

in the form of research contracts, particularly in the fields of energy, raw materials, environmental and agricultural research.

"Britain gets 15 per cent of that remaining £50m and that is a lot less than it should be getting," said Mr Silver.

For university scientists to take advantage of programmes such as a £16m package of environmental projects announced recently, they must act quickly with specific plans. They must be able to make informed guesses about likely programmes which require knowledge and contacts with "the right people" in London and Brussels.

In particular it was crucial for researchers to know the British members of the EEC's advisory committee for programme management who deal with applications. These UK members should be in sympathy with our university proposals and to achieve this should be briefed and informed about contract applications.

"Brussels is a somewhat oriental machine," added Mr Silver. "There

is bargaining and pressure going on all the time and this includes research."

However, Mr Silver acknowledged that a major stumbling block for British university scientists was the fact that the EEC only paid half the costs of a project while the host institute was expected to pay the rest. In France, the government encouraged universities by providing the other half, but this was not the case in Britain.

Instead, universities could turn to the research councils for cash, but this was not guaranteed and often took far too long to gain approval. Another method was to charge university overheads on the project which meant its contribution could be written off by the EEC. However, Mr Silver admitted there was no set pattern to follow and the success of universities depended on their own initiatives.

Yet it was critical for universities to adapt to the challenge as there was to be a major rise in available cash and also a change in the form in

which it was presented. In future there would be less project work and more would be spent on setting up flexible teams of international experts.

These trends are highlighted in an EEC document, *Scientific and Technical Research and the European Community* which was presented at the conference. This criticizes current European research, compared with that of the U.S. and Japan, for:

- Slowness of public research, particularly in universities, to adapt to changing circumstances;
- Member states tackling too many problems, and dissipating their efforts;
- Lack of close industry-public research relations.

To improve matters, the EEC report proposes concentrating funds on centres, either public or private, that are seen to be carrying out research of ultimate benefit to the community and to boost those centres of collective research which would be capable of developing programmes of interest of the community.

Help for deprived students

by Ngaio Crequer

The London School of Economics may join Imperial College, in admitting students from deprived inner city areas as an act of positive discrimination.

The Imperial College plan, announced at the end of last week, was stimulated by the Scarman report on the Brixton riots. The college will admit about half a dozen students in October 1982 to its degree courses who might not otherwise have been admitted to university.

They would probably first have to take a preparation course. The college has not yet worked out how to find the students. A spokesman said that although colour would not be a requirement "the likelihood is that they would be black. It may well depend on what areas we go into."

Professor Ralf Dahrendorf, director of the LSE, said this week that though there were intellectual and practical difficulties about positive discrimination, he thought Lord Scarman was right, although he preferred the term "affirmative action".

Stressing that he was speaking personally he said it was likely the school would do something in time for next year's academic session, although no discussions were yet under way.

Professor Dahrendorf also announced that the school had signed an agreement with the Mexican Council for Science and Technology under which 25 Mexican students a year would take a year-long postgraduate course at the LSE.

A deterioration in the staff-student ratio has been the price LSE has paid for maintaining solvency, it was revealed. The school's SSR has gone from 12.15 in 1979/80 to 14.8 in 1981/2 but Professor Dahrendorf pointed out that 20 years ago the ratio was 1:15. The policy of the school was not to go over 1:15 because of the overcrowding, says classes had to be given twice.

About 40 per cent of LSE's students are now from overseas, compared with the previous average of 32-35 per cent. The school is aiming to slim in size to what it was two years ago, to 3,817 students (compared with 4,469 now) and to 29 staff.

In real terms, this year the LSE faces a 30 per cent cut in its grant but Professor Dahrendorf repeated this week his pledge that there will be no enforced redundancies and no course closures as a result of savings.

The 1980s Fund, an appeal launched to provide funds to prevent financial hardship to students last year provided assistance to 215 students. The fund, designed to reach £2m over ten years, has already reached £1,269,953. LSE staff have contributed £73,000.

Professor Dahrendorf said that the student number targets which had been set for the school were hard to defend, particularly with regard to European Community students. He also said that postgraduate studentships, whether from the Department of Education and Science, or the Social Science Research Council, were still of the utmost importance in maintaining a strong research base.

Tory call to abolish UGC

by John O'Leary

The University Grants Committee should either be abolished or radically reformed, a pamphlet published this week by the Conservative Bow Group urges.

Mr Phillip Virgo, chairman of the Conservative Computer Forum, is sharply critical of the UGC in the pamphlet, *Learning for Change*, which puts the case for greater investment in continuing education. He argues for a shift of resources from the 14-21 examination treadmill and from non-vocational to vocational education.

The UGC, which is referred to as the University Grants Commission, should be abolished, Mr Virgo pro-

poses, or at least have its membership and terms of reference drastically amended.

"If it is to be the main channel of Government funds into the further and higher education industry, its current policy of fostering centres of academic excellence at the expense of the old colleges of technology is disastrous," the pamphlet maintains.

"We already train more scientists than Japan but only a tenth as many graduate engineers and technicians."

Industry should provide at least a third of the UGC's membership, if the committee is to survive, Mr Virgo believes, with no more than a third coming from the universities themselves. Alternatively, applied research and the "training of future

employees" should be divorced from the apprenticeship of future academics and academic research.

With the shift towards vocational subjects, the average age of students would rise from 21 to over 60. "Non-vocational education will largely become a leisure activity paid for by mature students out of past earnings rather than a middle class puberty rite at taxpayers' expense," he says.

In 20 years time, a dozen universities could be fully research-based and funded by endowments, while a further dozen colleges or institutes of advanced technology might be funded by industry. Redundant universities could be converted into recreation and leisure schools or industrial training centres.

Universities are failing industry, says Horlock

by Charlotte Barry

The failure of British universities to provide adequate technological updating for industry has been criticized by Dr John Horlock, vice-chancellor of the Open University.

In a lecture for the OU's *Open Forum* series to be broadcast on BBC2 this weekend, Dr Horlock says that university masters' courses in particular have failed to meet industry's needs.

Industry itself has not been blameless, he says. Employers have been reluctant to send experienced engineers back to university for a full year and individuals have been unwilling to step off the promotion ladder for such a long period.

Dr Horlock, who was a prominent member of the Finniston committee on engineering training, points out that about 200,000 professional engineers could be in urgent need of updating skills.

"The obvious method of updating graduate engineers and scientists is through master's courses in conventional universities but these have been singularly unsuccessful in attracting home students," he says. "The Finniston committee noted that in engineering over half the student body at postgraduate level came from overseas."

Dr Horlock praises the "excellent records" of the technological universities like Aston and Salford in running short updating courses lasting

up to two weeks. The distance learning courses introduced by the Open University's continuing education faculty have provided a fresher alternative to master's degrees, he says.

The preparation of these courses must involve more co-operation between institutions. "There is a clear need for such collaboration between the OU and the University Grants Committee institutions, the 44 universities," he insists.

The OU courses, particularly in the new field of scientific and technological updating (SATUP) being funded by the Science and Engineering Council, could be used by full and part-time students in conventional universities and polytechnics as modules for a master's degree.

All this presents a considerable challenge to the OU which risks bankruptcy in providing capital funds for courses which could fail to be covered by fee income, Dr Horlock says.

The new SATUP programme must rely on industry to help choose successful courses. "We also have to insist they put their money where their mouths are," he adds. "If Japanese companies can send their graduates to study at Imperial College surely UK industries can let their staff have a few hours and a few pounds to take these new courses we are planning."

Social work teachers for 'secrecy'

by Charlotte Barry

Social work heads in universities and polytechnics have accused the Central Council for Education and Training in Social Work of secrecy over its plans to carry out a major review of courses.

The council is planning to scrutinize the content of courses leading to the Certificate of Qualification in Social Work (CQSW) and the Certificate in Social Services (CSS). It will assess the development of the two qualifications, look at their similarities and differences and see how they have lived up to employers' expectations.

Heads of social work courses in the Midlands are angry because they fear a major restructuring of education and training is being planned behind their backs. They say the council has failed to inform or consult them officially about the impending review.

Dr Bernard Davies, spokesman for the Midlands group, said: "We want CQSW to confirm or deny that such moves are being made, and if they confirm this we want to know what consultation procedure will be used."

Social work courses should be involved in this procedure from the start, added Dr Davies, who is head of applied social studies at Warwick University.

"Our immediate fear is that this will be done with the minimum of consultation in a highly autocratic way which will leave courses with very little say and very little room for manoeuvre. It's very important that any moves are made extremely publicly and CQSW made to feel points of view other than those of the review group," he said.

The Midlands group is also worried about the possibility of a merger between the two qualifications now that CSS has become established and popular among social work employers.

Dr Davies said: "The CSS is cheaper and more directly in control of employers who can simply use it if they wish to turn out social workers who are moulded entirely in their image, and who fail to bring any kind of substantial and critical view to the actions and policies of employing agencies."

The group feels that the review is being carried out at the wrong moment, just as CQSW is facing pressure to cut course numbers, and job prospects are the worst in years.

Fees subsidized

Unemployed Open University students will have their fees subsidized next year with a special £0.5m grant from the Government following the announcement that OU fees will rise by a further 22 per cent to £120 for a full credit course. The OU council decided this week to raise the summer school fee by £2 to £77.

Final bid to solve union row

by David Jobbins

A final attempt is to be made to avoid referring a disagreement between two teaching unions over organization in Northern Ireland to the TUC disputes committee.

A long series of talks between the National Association of Teachers in Further and Higher Education and the National Association of Schoolmasters/Union of Women Teachers has failed to resolve the question.

It has now been decided that the assistant general secretary of the TUC, Mr Ken Graham, will chair a full day of talks on December 18 between the two sides, on the understanding that if no agreement is reached the disputes committee will be called in.

Only a small measure of progress has been made. The unions have now agreed that members can only transfer from one to another if their subscriptions are fully paid.

Natfhe wants to extend the agreement it had with NAS/UWT in England and Wales not to poach members in further education colleges. NAS argues that the rules governing relations between unions belonging to the TUC - the Bridlington agreements - do not apply in Northern Ireland.

Natfhe leaders also reject the presence of NAS/UWT on the negotiating body for further education lecturers in the province. NAS has been on the committee since the early summer, and its continued membership was confirmed after a review of its composition by the Department of Education.

But Natfhe leaders say that if NAS/UWT had observed the Bridlington agreements it would not have been able to recruit the necessary number of members in FE to qualify for a seat.

Natfhe general secretary Mr Peter Dawson said: "It is still a very stony road." NAS/UWT leaders were more optimistic, suggesting that agreement was close.

Postgraduate teacher training course 'too easy', says survey

by Bert Lodge

Almost half of the tutors in university education departments think the one-year postgraduate certificate in education course is too easy. Seven out of 10 lecturers would like to fail students whose performance on teaching practice is suspect and six out of 10 would fail them for unsatisfactory written work however good their teaching.

A growing attitude towards making the course more competitive is revealed in a survey of 1,255 staff in 30 university departments of education. The survey, carried out by Leicester University school of education under the direction of Professor Gerald Bernbaum, as part of a DES survey into initial teacher training in universities, shows that more than



A photo-electron spectrometer, the first of its kind in the world, has been installed in the physics department of Aston University. Three more are due to go to Japan, Moscow and America. The £150,000 spectrometer, purchased mainly through a Science and Engineering Research Council grant, will be used to study surfaces and surface composition of all types of material, particularly steel.

Newspaper attacks president

St Andrew's University student president Mr Peter MacMahon has been strongly criticized by students for his handling of a dispute over library opening hours. Last week MacMahon condemned the university's refusal to change its decision to open the library only one evening a week. But he has already rejected an offer from the principal to open the library for two evenings and this offer was subsequently withdrawn.

The student newspaper *Alen* has accused Mr MacMahon of mistating the policy of the students representative council by telling the principal it wished the library to be opened during four evenings when in fact it had agreed on three as a basis for negotiation.

Mr MacMahon said: "You slightly

exaggerate your case so that you can concede more. We rejected two nights because that was totally inadequate."

More than 1,000 students had protested against the reduced opening hours during a library work-in, he said. The library has been open only evening a week since the beginning of the session as a result of several months monitoring which the university says revealed it was often used by fewer than ten students in the evening. The reduction in hours will save an estimated £15,000 a year.

The library will be open for three evenings a week for a fortnight before this term's examinations and the university will reconsider the matter in February following further monitoring.

primary tutors, only 60 per cent of whom believe a poor performance on teaching practice should produce a recommendation to fail."

While a majority think teaching performance should be kept on or fail test, nearly 60 per cent would also fail students for unsatisfactory written work.

Nearly 20 per cent think attendance at all PGCE classes should be compulsory and 40 per cent think a strict watch should be kept on it. Half of all respondents agreed that "the PGCE is long enough to teaching but an introduction to teaching but not a satisfactory one". Yet only 30 per cent called for a longer course with two thirds of these specifying with two thirds, usually to include the probationary year. (TES)

The softest, says the report, "albeit with small numbers, are the

A child's view of television's Mr and Mrs

Researchers at Kent University are to examine how children's understanding of the roles of men and women are influenced by the way they are shown on television.

The Independent Broadcasting Authority has given £14,657 to the research project being headed by Dr Kevin Durkin, a lecturer in social psychology.

The project, initially funded for one year, will investigate how children interpret stereotypes of male and female behaviour and how they respond to changes in the way the different sexes are characterized on television.

Research in America suggests that there is a link between the amount of time a child spends watching television and the child's beliefs about accepted male or female behaviour. Researchers have noted that the sexes are shown on television in traditional ways - the man as tough, strong, adventurous and assertive, and the woman as weak, dependent, less capable and holding less prestigious and interesting jobs.

Dr Durkin said: "A three-year-old girl, for example, may not be fully aware that she will grow up to be a woman. During the next three or four years she will understand what women are."

He wants to discover to what extent that understanding is influenced by what the child sees on television. Television companies have agreed to make available programmes showing people's roles in less traditional ways. The university will also make its own programmes in their own words to show adults adopting different roles.

In a series of one-off experiments children will be assessed about their attitudes, such as what should Mum and Dad do at home. Then they will be shown a television programme on the subject and their attitudes will be tested again.

Natfhe divided over change to annual pay claim

by David Jobbins

A renewed internal row over the college lecturers' 1982 pay claim is threatened this weekend when its final shape is to be decided. The National Association of Teachers in Further and Higher Education is split over plans to reverse conference policy and drop a flat rate element in the claim.

Rather than take the decision itself the union's executive put the issue to regional councils which met last weekend. Indications were that the regions were still divided between unwillingness to breach a conference decision and recognition of the need for maximum public sector unity.

The views of regional councils are to be discussed by the national salaries council in London this weekend. The TUC public sector unions are pledged to a common core claim part of which reflects the increase in the cost of living. Many unions are honing in on 12 per cent as the "going rate" for the claim, and this was one of the options put to regional councils by the Natfhe executive.

The other option was for the flat rate to be additional to the 12 per cent claim.

The conference resolution had expressed the claim in terms of £x + y

per cent, and the union's salaries advisory committee had recommended that the £x should be zero. Many union members are unhappy about abandoning the compromise formula.

Mr Martin Rosier, secretary of the left-wing college rank and file group within Natfhe, accused the executive of deliberately putting forward a "self defeating" option in the hope that people would go for the 12 per cent.

"The formula we want is a half and half split between £x and y per cent," he said. With 12 per cent to be won, this would give the average Natfhe member £500 and 6 per cent. But if the increase, payable from April next year, is kept near to 4 per cent, the difficulties of calculating the distribution would be immense.

Rank and File is also angry that the proposals for a merger of the two lowest salary grades has been referred to the salaries review body set up to consider the structural part of last year's claim.

The review body had been expected to produce a report which could form the basis of the 1982 claim. But the process has taken longer than expected and Natfhe has speeded up its claim for submission before Christmas.

Malaysian students get grant aid

Two business executives - one based in Britain and one in Malaysia - are setting up a bursary fund to help Malaysian students in this country. The help is mainly aimed at students already taking higher education

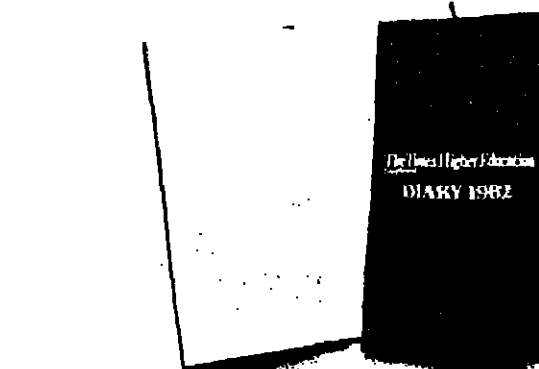
courses who have been hit by inflation and higher fees. Full details of the scheme will be announced in about two weeks but it is expected to benefit around 50 students a year.

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North American news

'Freedom' professor rebuked

A Georgia University professor who spent three months in jail rather than reveal how he voted on a university promotions committee has been sharply rebuked by a United States Court of Appeal.

Upholding an earlier court decision to fine or imprison Professor James Dinman for contempt of court, the Eleventh Circuit Appeals Court said it found "nothing heroic or noble" in his action.

Professor Dinman went to jail last year after refusing to divulge how he voted on a university committee considering whether to grant tenure to Mrs Majja Blaubeurg, then a member of the university staff.

Mrs Blaubeurg, who was not reappointed or given tenure, sued the university for discriminating against her because she was a woman. In a hearing in 1980 Professor Dinman refused to tell the court how he had voted, on the grounds that doing so would infringe academic freedom.

But the appeals court decision this month said that the professor's argument that academic freedom shielded him from the obligation to testify in court was "not even slightly persuasive".

The three-judge panel concluded that academic freedom was an important concept but one that had its limits: "To rule otherwise would mean that the concept of academic freedom would give any institution of higher learning carte blanche to practise discrimination of all types."

The judges also rejected a second argument that Professor Dinman's refusal to reveal how he had voted was justified by a common law privilege designed to protect the secret ballot.

That privilege, the court ruled, was designed to protect the political process and could not be extended to employment decisions.

The opinion continued: "No one compelled Professor Dinman to take part in the tenure decision process. Persons occupying positions of responsibility, like Dinman, often must make difficult decisions. The consequence of such responsibility is that occasionally the decision-maker will be called upon to explain his actions."

Professor Dinman, who has received widespread support from the higher education community, intends to take his appeal to a higher court, his resolve stiffened by a ruling in a similar case in another court which appeared to uphold the secrecy.

In a decision this month, a federal district judge in New York ruled that members of a tenure committee at the City University of New York were not obliged to reveal how they voted in a promotions decision which had resulted in a claim of race discrimination.

Meanwhile, the American legal system is becoming increasingly confused about the interpretation of legislation enacted in 1972 to outlaw sex discrimination in education.

The legislation, Title IX of the education amendments, said that no person should be excluded, on the grounds of sex, from any educational programme or activity receiving federal funding.

But in a flurry of recent cases different courts have reached opposite decisions on whether the law is intended to apply to all parts of an institution's activities, whether or not they receive direct federal funding.

An appeals court in Boston ruled this month that Title IX only covered activities which received direct federal aid. It dismissed a sex discrimination complaint by a former Harvard law student, on the grounds that the law school was not a direct recipient of government funds.

Peter David,
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The Times Higher Education
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Carnegie cohorts look for new direction

from Peter David

WASHINGTON
A bold attempt to rekindle the flickering optimism of America's beleaguered universities was made in Washington last week at the 75th anniversary celebration of the Carnegie Foundation, the nation's unique higher education research organization.

An array of Ivy League presidents and educational politicians attended a colloquium at Georgetown University to hear Dr Ernest Boyer, former US Education Commissioner and current president of the foundation, call for a reaffirmation of the national significance of higher education.

Higher education, he admitted, was suffering from an enervating loss of confidence and "a nagging feeling that it is no longer at the vital centre of the nation's work." But its contribution was more important than ever, not only in teaching and research, but in enabling citizens to participate in national life.

In an anniversary essay written with Mr Fred Hechinger, president of the New York Times Foundation, Dr Boyer said that the universities needed to act to combat the growing "civic illiteracy" of the American people.

In 1979, he said, millions of Americans sat in front of their television sets during the Three Mile Island crisis listening to experts talk about "rems" and "cold shutdowns" in what seemed like a foreign language. Ordinary citizens were equally baffled by the technical debates on nuclear arms or the future of the water supply.

Today, public policy circuits appear to be dangerously overloaded. In frustration, many Americans now seek simple solutions to complex problems, they turn to repressive censorship, align themselves with narrowly focused special interest groups, retreat into nostalgia for a world that never was, succumb to the blandishments of glib electronic soothsayers or - worst of all - simply withdraw completely, convinced that nothing can be done.

Higher education had a special obligation to combat this growing illiteracy about public issues, Dr Boyer said. The nation's colleges and universities could become systematically engaged in the civic education of adults without any dilution of academic vigour.

Unless Americans found better ways of educating themselves as citizens, they ran the risk of drifting unwittingly into a new dark age in which small cadres of specialists would control knowledge and

The universities had impetus . . . from Roosevelt's brains trust . . . in rebuilding Europe . . . in searching for a national research base . . . in working for an answer to Sputnik. Where should it come from now?



Dr Boyer: 'higher education lacks confidence'

citizens would make critical decisions on the basis only of blind faith in one or another set of professed experts.

"We do not propose that adult education be reduced to endless seminars on world affairs. However, civic education seems to us to have a special place in this emerging programme. What we need, perhaps, is a new adult education degree - a bachelor's master's in civic education - to give this new priority the stature and credibility it deserves."

Dr Boyer combined his appeal for a new mission for higher education with a frank analysis of the political and financial problems which had created an unprecedented mood of crisis in American universities.

He said that for the first time in nearly half a century the nation's higher education system was not caught up in some urgent national endeavour.

In the 1930s Roosevelt had popularized the "brains trust" to rescue the American economy; in the 1940s the government and the universities collaborated in building up the national science research base; after the war campuses were mobilized to implement the Marshall plan for European recovery and in the 1950s Eisenhower turned to the universities for an answer to Sputnik.

"Today, campuses are not being called upon to win a global war or build a Quonset hut for returning veterans. They are not trying to beat the Russians to the moon, or gearing up to implement the new programmes, as in the heady days of the new deal, the new frontier and the great society. Today higher education appears to be adrift because, in some

The Carnegie Foundation for the Advancement of Teaching, created by Act of Congress in 1906, enjoys an unrivalled reputation as America's most influential private voice on education policy. With a broad charter requiring it to enhance the quality of education, the foundation has conducted landmark inquiries into every aspect of the nation's educational affairs.

Henry Pritchett, the foundation's first president, came from the Massachusetts Institute of Technology and presided for 25 years over a series of Carnegie reports which had far-reaching consequences for higher education. Most spectacular of all was the Flexner report on medical education, which put science at the centre of medical training, brought the medical schools into America's university system and put many private medical colleges out of business.

The past 13 years of the Foundation's history were dominated by the Carnegie Commission and later Council on Higher Education organized by the foundation's third president, Clark Kerr. The series of research studies and policy analyses conducted by the council resulted in scores of books and reports which constitute the most thorough analysis of higher education in America or any other country. Membership of the Carnegie board is still one of the highest honours that can be bestowed on American university leaders.

respects, the nation is adrift."

Dr Boyer said the loss of confidence was also being fuelled by the certainty of a rapid fall in the number of university-age young people in the United States and the equally rapid reduction of federal support for university research - between 1964 and 1980 federal spending on research declined by 43 per cent, he said.

The cuts in research would force universities to turn to industry for support, a policy fraught with risks. Competition between firms could undermine the open exchange of research findings and shift the initiative in research from the individual scholar to the corporate manager.

He continued: "For practical and creative reasons, new research alliances must be explored and industry support will be required where government leaves off. Still, we conclude that regardless of that alliance, all academic research should be pursued under the full control of the investigator whose success is judged by academic peers. And we believe the time has come for the nation's great research universities to develop such policies in which such safeguards are made explicit."

Dr Boyer's warnings on industrial support for university research were taken further by Dr Donald Kennedy, president of Stanford University, which has just received \$12m from private corporations for a new microelectronics centre.

Dr Kennedy warned the colloquium that even a sharp increase in private support would be unlikely to compensate for the loss of federal government research funding. Stan-

ford, for example, would have to increase its endowment six times to maintain its present research effort without government help.

Even so the universities needed to tread carefully in their relations with industrial research sponsors. "We need to do some careful work to establish conditions for a new relationship which is coming whether we like it or not," he said.

The strong incentive which biotechnology had created for firms to acquire the proprietorship of basic research ideas would result in a troubling confusion of roles. Universities would have either to become entrepreneurs themselves - and risk alienating staff in subjects without commercial applications - or wait out specific licensing arrangements with outside companies.

Dr Kennedy advised universities not to prop up their tottering national science research activities by diverting funds from the already-weakened humanities and social sciences. Civic disciplines in both areas needed to be sheltered from the recession in public spending.

A far more ruggedly political analysis of the American university crisis was provided by Dr John Brademas, former Democratic congressman and now president of New York University.

He told the colloquium that in only a few months of office the Reagan administration had reversed the bipartisan support of higher education which had prevailed since the war. The president's policies, he said, "endanger our national security, our economic strength, and our individual and social wellbeing."

The October inter-governmental conference of OECD countries in Paris has noted the Greek problem. Within the number of places in higher education almost doubled from 1968 to 1977, the proportion of candidates admitted within the total system rose at around 25 per cent. The number of entering the university, however, have been considerably reduced from 29 per cent of successful applicants in 1968 to 18.2 per cent in 1977. Considerable variations among fields of study occur within these low admission rates, ranging from 10.6 per cent of applicants admitted in medical studies to 25.4 per cent in languages and law combined. Secondary level reforms were introduced to reduce the overall demand for post-secondary education.

In recent years the Greek government eliminated the general entrance examination into the universities and national examinations to be taken in the course and at the end of upper secondary education. These examinations were taken together with average grades in school are taken into

account in calculating a composite index for selection into higher education. At the centre of current debates on Greek educational policy has been the topic of the dangers of having a selection formula in which crucial and irreversible decisions are taken at an early stage.

While the general approach of Andreas Papanastasiou has been to pull away from American influence, he has preferred on educational matters the American to the European system. Even before the election campaign he was quoted as favouring the departmental structure of American universities over the faculty/institute structure of the traditional European university. As an economist, he has talked of the necessity for developing countries like Greece to produce more graduates of middle-level technical and vocational curricula.

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But the union expressed displeasure with proposals from the Federal Conciliation Board and said it will continue its efforts to improve conditions of academic and administrative personnel.

The authorities have agreed to pay the 6,000 workers involved in the strike 50 per cent of their salaries lost during the action. Twenty one thousand students had their studies interrupted.

Overseas news

Albania plans to end isolationism

Albania may be planning to end its long isolation in the higher education field. Diplomatic sources indicate that the university in Tirana has recently been seeking chances to send postgraduate students to West European universities.

On the list of probabilities are Rome, Paris and Vienna. British and West German universities, although attractive to Albanian academics, are ruled out on diplomatic grounds for there are at present no diplomatic relations between Albania and the UK. There has also been no post-war normalization of relations with West Germany.

Since the severing of relations with the Soviet Union and later, China, Albania's main academic contacts have been with the University of Kosovo in Yugoslavia. These were ostensibly maintained on behalf of Yugoslavia's sizeable Albanian minority, but also served as a window on to world scholarship.

Earlier this year the window was virtually closed when an outbreak of Albanian separatism centred on the University of Pristina, caused the Yugoslavs to cut academic contacts with Tirana to a minimum.

In spite of a political screening of all Kosovo students during the summer vacation, the recurrence of disturbances at the university's main student centre in Pristina at the beginning of the month show that the unrest is by no means settled, and it seems hardly likely that normal academic relations with Tirana will be resolved in the near future.

The possibility of Albania's expanding academic contact seems to indicate some cryptic remarks in the words of Party First Secretary Enver Hoxha to the Party congress early in this month. Much of Comrade Hoxha's speech was devoted to recent Albanian achievements in science and the arts "relying completely

on our own forces" - the standard praise of the current isolationism.

Nevertheless, he also made some brief and unexpected allusions to cultural exchanges, which would, he said, allow the Albanians to get to know the achievements of other countries and to assimilate them.

While lauding the achievements of the last five years, brought about by the "deepening of the scientific and technical revolution, Comrade Hoxha said that although there had been good progress in the teaching and research sectors, this was not always reflected in production. As a result of this a new Committee for Science and Technology has been set up as an instrument for the "better direction and organization of science".

Mr Hoxha then reviewed the targets for the new Five Year Plan, which, he stressed were "scientifically based and fully achievable". Objectively many of them seem grandiose - an expansion of 65 per cent for example in the output of the chemical industry, a 200 per cent increase in the exploitation of certain mineral deposits and a 60 per cent rise in exports. The targets for higher education are no less ambitious - 45 per cent more students will be enrolled in higher education during the next five years, new courses for undergraduate and postgraduate students will be established, and the publication of academic texts will be substantially increased. True to the Stalinist tradition, the Albanians are reluctant to quote absolute figures, and the high percentages could be interpreted as simply due to a low base-line. From Mr Hoxha's speech, however, it appears that some persons graduated from higher education and 113,000 completed secondary education during 1976-80, the latter figure representing an increase of 57 per cent over the previous five years.

Reform likely after victory

by Henry Wasser

The victory of Andreas Papanastasiou will bring the debate over higher education in Greece to the forefront of parliamentary discussion. The new prime minister has often emphasized the need for radical overhaul of post-secondary education. Only the Italian universities, he has asserted, are of lower quality than Greek in the non-European countries.

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Bulge could lead to limits on entry

from James Hutchinson

The West German association of university vice chancellors has warned that if the present level of economies is maintained the universities will not be able to fulfil the tasks that face them in the 1980s.

In the next ten years the number of students is expected to increase by 30 per cent to 1,300,000. This was not just a consequence of the bulge birthrate years, said the vice chancellors, but was also a result of government policy. Young people had been encouraged to study.

The president of the association,

Mr George Turner, said expectations had been aroused which now had to be met. The universities, he pointed out, had agreed to accept 15 per cent more students than they had places for, but next year the law faculties looked like being burdened by a 48 per cent surplus. There would have to be dramatic limitations on entry.

Mr Turner predicted that the cut would cause a shortage of staff and therefore make courses longer, and would greatly curtail research. Some departments of Cologne University and the technical university in Darmstadt would have to close, and the

numerous *clausus* - restrictions on entry - would be extended to include law and, possibly, economics.

The economy drive has revived a discussion as to whether tuition fees should be re-introduced at German universities. The vice chancellors were not enthusiastic about the idea. They said that even if the principle was accepted, it would be a long time before fees could be brought back. Obviously the rates would have to be geared to the financial and social circumstances of students, and criteria could only be established after the most careful consideration.

Academe loses its appeal

from Geoff Maslen

MELBOURNE

Academic life is losing its appeal for the inhabitants of Australian universities who are now experiencing uncertainty, anxiety, and frustration in their jobs. At least that is the result of a survey of a sample of academics at the University of New South Wales, a survey which revealed a widening gap between the ideals of academic life and the realities of daily experience.

The study was carried out by researchers from the university's tertiary education research centre and covered a group of lecturers, senior lecturers, and associate professors from the faculties of arts and science. The two faculties were chosen because these disciplines were said to not only constitute the traditional core of a university but were also less subject to the effects of those variables in the graduate employment situation which affect the professional faculties.

In the survey, respondents commented on the effects of the current reduction in available resources for their research, teaching, publication rate, administrative responsibility and career prospects. They were also asked to comment on any changes in the quality of students, institutional life, the satisfaction gained from their work and the ways in which the university was responding to changing circumstances.

"Many people feel insecure and anxious about the future, they see their career prospects as being constricted and perquisites such as study leave being eroded. There is a sense that the work of the universities is not much valued by the community at large, many staff feel that teaching is less rewarding because there are fewer students with a real interest in intellectual work. All these factors combine to make academic life appear less attractive than it was formerly," the report states.

It goes on to claim that there is considerable evidence of an impending decline in staff morale which could have "profound consequences for the work of universities". Academics feel that institutional arrangements largely fail to recognize their need to participate more fully in decision-making and policy formation.

The collective impression of the university is that of an institution which is socially fragmented, highly bureaucratized and where a small group of people make most of the decisions without usually consulting or consulting with anyone else. But if academics at New South Wales have been soured by changing fortunes, they feel even more miserable about some of their colleagues. Those surveyed claimed that some staff did no research or were lazy.

Although the council has tried to put the best gloss on the findings, there is disappointment among those who have been urging young people to switch to technological courses for jobs in the changing industrial sector.

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New deal in sight for Holland's foreign students

from Lionel Cohen

THE HAGUE

New opportunities for study or research by foreign students at Dutch universities may follow last month's Cabinet decision recommending ratification of a UNESCO convention for wider mutual recognition of degrees and diplomas.

The number of foreign students enrolled in Dutch universities has for many years been tiny in comparison with other Western European countries. According to Holland's Central Statistical Bureau, during the 1980/81 academic year there were only 3,129 foreign students out of a total national university student population of over 147,000. Part-timers and students registered for non-examination courses were also included in these figures so that, on a percentage basis, it can be said that only about one student in every hundred registered for full-time undergraduate study courses comes from abroad.

The reasons for this state of affairs are to be found in a complex of academic and administrative problems that have built up over a number of years - problems which implementation of the UNESCO convention will go some way towards solving, but will not thereby be entirely eliminated.

Thus although, in theory, entrance to a course of university studies in the Netherlands is relatively straightforward for holders of foreign qualifications giving similar rights in their own country, the right is often limited in practice by restrictions imposed on entrants from most non-Dutch-speaking countries.

Many years ago the Dutch government published a short official list of the foreign diplomas which it would accept as entry qualifications. But this list - mainly limited to diplomas

Graduate jobless figures double

from John Walshe

DUBLIN
The second national survey of career patterns conducted by the National Council for Educational Awards has yielded disappointing results - unemployment doubled among award holders, and there was a switch to services rather than manufacturing jobs.

The NCEA awards, diplomas, certificates and degrees in the non-university sector, mainly technical colleges which have been getting increasing attention of late as fears about the "relevance" of university degrees.

Although the council has tried to put the best gloss on the findings, there is disappointment among those who have been urging young people to switch to technological courses for jobs in the changing industrial sector.

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China finds work for class of '82

More than 260,000 students, who entered China's 675 universities and colleges through the tough national entrance examination in 1977, are scheduled to graduate either at the end of this year or at the beginning of 1982, which will finally fill up the graduate gap since 1979 when the last Worker-Peasant-Soldier students left China's universities and colleges. According to a joint document of the Ministry of Education and four other central departments, which was recently approved by the State Council for circulation, the students will be assigned jobs before they leave.

Universities and colleges will have priority in recruitment of graduates as new teachers, while attention must at the same time be paid to the needs of vocational schools and schools for industrial workers.

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Two of four new principals, Sir Kenneth Alexander (inset left) of Stirling and Professor George McNicol (right) of Aberdeen.

Regrouping troops behind Hadrian's Wall

The supporters of Scottish devolution have been having a field day with the universities' present troubles. It would be untrue to suggest that their condemnation of the cuts is not genuine, but it is able to be delivered in a smugly righteous "I-told-you-so" tone.

While education was to come under the aegis of a devolved Scottish Assembly, there was a strong and vociferous academic lobby which pressed successfully for the exclusion of Scotland's eight universities. In 1975, the Committee of Vice-Chancellors and Principals firmly stated: "It is vital that the British universities should continue to be administered as a united group in order to preserve those characteristics which are unique to universities and ought to be preserved in the interests of our international standing and the prestige of the UK."

Devolution and academic freedom were incompatible, ran another argument, and present Scottish Office minister Malcolm Rifkind warned that assembly control of the universities could lead to blatant political interference.

Nigel Grant, now professor of education at Glasgow University, and Alex Main, of Strathclyde University's centre for educational practices, were unheeded Cassandra when they produced a pamphlet in 1976 asking how effective a guarantor of autonomy the University Grants Committee was, since the universities were almost totally dependent on the Government for their money.

Great capital has since been made out of the universities' anti-devolution stance, particularly by the Scottish Nationalists, until it has achieved the proportions of a bet-

royal second only to the Treaty of Union between Scotland and England in 1707.

An indignant nationalist told this year's party conference that the Scottish universities had acted as morally bankrupt and intellectually myopic people who had sold Scotland for a mess of pottage and were now left with a mess.

It is a moot point whether a devolved assembly could have protected the Scottish universities from the cuts or their time scale, and how far academics' votes affected the outcome of the devolution referendum. But there has been a remarkable change of emphasis since the days of devolution when the British universities spoke with one voice, through the CVCP, and there is no reason to believe the Scottish principals were taking a different view.

Dr J. Steven Watson, Oxford-educated principal of St Andrews University, apparently spoke for the majority of Scottish academics when he said: "It would not be easy for the Scottish universities to maintain their present standards if they were cut off from comparable institutions in Wales and in England."

However, by May this year a distinct Scottish dimension had begun to materialize. Everyone focused on the Scottish principals, and they were urged to unite in the face of the impending UGC threat. A month before the UGC letters were received, the conference of Scottish university courts made the startling announcement that the principals would circulate their letters to one another as soon as they were received, and that they would all attempt to ensure that the present range of courses in Scottish universities was maintained.

The initiative came from Glasgow University's court which proposed cooperation to ensure that any rationalization would not reduce the broad range of Scottish courses.

Scottish universities can quite easily be seen separately from their other UK counterparts. Scottish school education is much more generalized than in England, with pupils tending to take four to six higher in fifth year rather than two to three A levels in sixth year. This trend continues in university, with students able to take a three year, general ordinary degree, or a four year specialized honours degree of which the first two years are a general course.

The universities have never been bedevilled by the "Oxbridge versus the rest" mentality prevalent in England; Scotland had four universities while England had only two, and all eight have closer links with their local communities than is usual south of the border.

In terms of university government, Scottish courts are much more powerful than their counterparts, while conversely the senates do not have control over money. However, since the initial promises of cooperation, there has been a deadly silence from the principals. Matters have been understandably complicated by four new principals taking over this year: Dr Graham Hills of Strathclyde; Sir Kenneth Alexander of Stirling; Professor George McNicol of Aberdeen; and Dr Tom Johnston of Heriot-Watt.

The latter two took up their appointments on October 1. But there have been suspicions that the principals' silence is symptomatic of more than merely allowing the new boys to settle in.

Principal Watson confided that the university courts meeting before the UGC letter had been "like Wellington's soldiers behind the lines of Torres Vedras - we didn't exactly love one another, but we knew if we didn't hang together we'd hang one by one."

St Andrews senate had written to the UGC, deploring the concept of "first, second and third division universities" as "inimical to the concept of a university as an interdisciplinary community of scholars and researchers."

But once the letters had been received, what hope was there for cooperation? The recent episode of the Scottish education colleges, a more obviously cohesive group than the universities, had shown that when things got rough, no institution was going to stick its neck out for another.

Edinburgh and Glasgow had become Scotland's Oxbridge, Stirling's future was bleak, and Aberdeen was discovered to have been much more severely hit than anyone had realized.

When Sir Kenneth Alexander emerged from a specially organized meeting with the UGC "quietly confident" that Stirling's cut could be reduced, Dr Burnett of Edinburgh commented sharply: "If more money is given to one part of the system, less will be given to others. It's not at all clear what kind of promise the UGC has given if promise it can - but it's quite clear that it can only be done at the expense of other institutions or conceivably at the level of student grants."

The Scottish National Union of Students has criticized the principals as being the major weak link in the campaign against the cuts through

their failure to make a joint public statement.

But there are signs that the principals have simply been biding their time before acting to maintain the Scottish tradition.

"All the principals are prima donnas to a man," says Dr Hills of Strathclyde. "And a gathering of eight prima donnas is a recipe for disaster. Nevertheless, I can't think of any other group which has got as far as we have, and we will not readily see the Scottish university system mortally wounded."

The principals have considerable potential political punch. They can put pressure on the government through the Scottish Office. And the UGC and ministers will find it more difficult to ignore eight principals wishing to discuss sensible rationalization of a distinct system than one vice-chancellor pleading an individual case.

It is a measure of their influence that last week William Waldegrave, under secretary for higher education, travelled to Edinburgh to meet the principals, who are deeply disturbed by rumours that the Government is considering reducing the Scottish honours degree to three years to bring it in line with England. Mr Waldegrave's only other scheduled meetings are with Aston and Salford, two of the worst hit universities.

The principals are not men given to rash outbursts. For Wellington's soldiers to retreat behind the lines of Torres Vedras may have seemed at the time a cowardly manoeuvre; it was proved in time to have been a sound tactical move.

Olga Wojtas
Scottish Correspondent

Barred from practice

From 1984 anyone wanting to sit the Bar exams will need at least a second class honours degree. At the same time numbers on the vocational course that students take before they are allowed to practise will be limited from the session beginning 1982/83 to 1,000 and preference will be given to those who intend to practise at the English bar.

The move is particularly resented by foreign and immigrant lawyers who see it aimed mainly at them. Those who qualify as barristers fall into two categories. One group goes into the practising profession and the other uses the qualification as a general entry to "another career". With a few exceptions, would-be barristers take their degree in law which is then followed by the vocational course at the Inns of Court School of Law in Gray's Inn, London. The school has places for around 800 students and has traditionally been open to all students with law degrees who wish to become barristers but the Bar Council has recently felt a need to limit numbers coming into the profession.

Of the 800 to 900 students taking the course each year around 500-600 say that they intend to go into practice at the end of it and around 300 newly-qualified barristers enter pro-

fessional practice. The number practising has doubled to 4,500 over the past ten years and the current recession has further increased the numbers wanting to qualify, the council claims, with more law graduates attracted to a course which may be eligible for a grant and which will keep them off the unemployment list for a few months.

The qualification in English law has always attracted large numbers of overseas students. Many who are not included in the figures for barristers going into practice in their country return to practice in their countries of origin. At present the School of Law has 150 students from Malaysia on the course and expects to get applications from 400 next year. A total of 1,242 applications last summer resulted in 1,100 registered students and a waiting list is beginning to build up. It is this physical problem of lack of facilities at the school which is part of the reason for the new restrictions, the council says.

It is claimed that the massive capital expenditure needed to build

new schools cannot be found and that administering and controlling the practical part of the course is impossible outside of London. It cannot be offered at polytechnics, for example, the Bar Council says. It is possible to qualify for the Bar by correspondence course but without the necessary practical experience offered at the school the student cannot hope to go into practice.

"The Bar has always held itself open to all comers," said Sir Arthur Power of the Bar Council. "This may be nice in a general way but in fact there has always been a restriction on the number of people who actually practise."

There has always been a shortage of places in established chambers. The current economic situation and a profession that is self-enforcing does not have vacancies arising in the same way as other professions.

and work is difficult to find in a profession which cannot advertise.

The Bar Council's decision took the Law Society somewhat by surprise. The solicitors' profession is under great pressure from the numbers seeking to enter it and the society's education and training committee recently decided to deal with this by raising the standards of its final exams rather than by limiting the training entry qualifications.

"We decided to keep entry open to all although someone without a good academic background will probably find it very difficult to get through," said Mr Graham Lee of the Law Society. "Our view is that the final exam not the degree should be the deciding factor but we may have to change this now in the light of the Bar Council's statement. We have to consider the effect of their action on those people who do not get a second and whether they will then seek to come into the Law Society."

Those who oppose the Bar's new degree standard point to some eminent judges who failed to get the

necessary second but Sir Arthur believes that if they had been asked to get a better result they would have done so.

The Society of Black Lawyers has been pressing the Commission for Racial Equality to investigate the Bar.

Mr Sidghat Kadri, an Asian barrister and founder member of the society, sees the new rules as just another manifestation of the Bar's wish to stop black people from entering the profession.

He believes the new move is an extension of a situation which makes it virtually impossible for a black barrister to enter a well established chamber. The only exceptions are the few specially established black chambers, mainly in Lincoln's Inn.

"Many people with their roots in this country and a genuine desire to practise here but who perhaps have a divided family with some members living abroad will be discriminated against," Mr Kadri said.

"A few years ago it was virtually impossible for a black student barrister to get pupillage," Mr Kadri claims. "Now it is possible to do that but then you are told to go away."

Sandra Hempel

Last week Mr David Aaronovitch, president of the National Union of Students shared a platform at the Conway Hall London with trade union leaders including Mr Len Murray, general secretary of the TUC.

His theme was the need for greatest possible unity in fighting the cuts in higher education and building something better in the process. Meanwhile behind barricades of filing cabinets and chairs just over a mile away, students occupying the Polytechnic of Central London are spaghetti bolognese cooked by their democratically-elected catering committees (subject to immediate recall) and wondered whether the bailiffs would try to evict them.

The two scenes characterize the two styles of student politics. The PCL students exemplify the popular image perpetuated in a media which largely ignores the less spectacular initiatives pursued by the Left Alliance leadership at national level, and in campus trade union committees across the country.

Mr Aaronovitch took the opportunity to attack the PCL students, who had that day tried to occupy his office, for falling out of line with the plans of the campus unions. In the event a one-day strike went ahead but total disruption of the polytechnic's activities made it an empty gesture.

He said: "I do not necessarily want occupations of buildings and insular tactics of this sort. I want to occupy the minds of people who have aspirations to higher education and win them to what we are doing in unity with other organizations - because this is the only way the student voice is going to be heard." This caused little surprise among the PCL students. But they were surprised at the approach adopted by the NUS leadership and surprised that their local action had commanded such extensive media coverage. They had been careful to minimize damage and had not plundered the canteen deep



PCL students in occupation while Aaronovitch hob-nobs with TUC chiefs

Two faces of student politics

Does the NUS want to go the way of David Aaronovitch or follow the line of the PCL students, asks David Jobbins

freezes in an obvious effort to avoid antagonizing the public. But they firmly believed the time had come for direct action, and they were in the front line of a struggle against capitalism.

One student leader said: "We do not want to be seen as troublemakers but if you take direct action the odds are stacked against you. We did not start out to disrupt any teaching or maintenance. It was the polytechnic which closed the building and brought in the police."

They are at pains to dissociate themselves from the student unrest of the 1960s - "romanticized

Guevarism" one called it. "There was a lot of fuss but the numbers of institutions involved was tiny," he said. "Now when you talk about action countrywide it is a question of two-thirds of the colleges in the country being involved."

Although the Left Alliance under Aaronovitch is under continuing pressure, other national student leaders feel he has got the overall student mood pitched about right.

"I don't think a majority of students are falling in the rush to take more drastic action than currently being offered by the leadership," one said. "There are ways in which PCL

is going too far too fast. They are certainly going further and faster than everyone else."

But the levers he recognizes that the crunch may come soon if there is no evidence that the strategy of responsible negotiations with ministers over issues such as awards fail to pay off.

The first major student conference of the academic year at Blackpool this weekend will be the acid test for Aaronovitch's leadership.

It will indicate whether students are anxious for the sort of direct action championed by the extreme Left, or whether they want the ma-

ture, evolutionary strategy followed by the current leadership to continue.

If - and it seems unlikely given reports of the student mood - there is a reverse, Aaronovitch could find his hand-won links with the "respectable" trade union movement jeopardized overnight.

He is confident he has read the runes correctly, that students realize their priority is to convince the public that education cuts should be resisted.

But other worries remain. The National Organization of Labour Students continues to criticize NUS leaders for avoiding discussion of the alternative economic strategy as a key component of the cuts campaign. The Federation of Conservative Students, claiming that its numbers in colleges have been maintained over the past year, continues to drift to the right, its leaders defending the cuts and calling for university closures. And there is the unknown quantity of the political impact of the Social Democrats - their attitude on organizing at student level remaining unclear.

Aaronovitch is understandably sensitive to criticisms.

"It is not a recipe for inactivity. It is a recipe for a much higher level of activity than just packing into occupations. It is much more difficult and a more radical thing to be involved in."

"Over the last year we have completely transformed our relationships with the teacher union and other organizations."

Her detects evidence that backbone support for NUS is growing, as a direct result of the cuts and the apparent threat to grant levels. The steam appears to have gone out of the disaffiliation movement of two or three years ago, with Newcastle affirming its membership by a vote of four or five to one at one of the largest union general meetings he has ever attended.

A nasty dose for medicine from charity

The launching of an exhibition on the work of medical research charities last week arrived at a timely moment in the history of these now crucial organizations. At a period when universities and their scientific departments are under a financial attack unprecedented in higher education, more and more pressure is being put on the charities to make up serious shortfalls caused by Government cutbacks.

In the words of Dr Peter Williams, chairman of the Association of Medical Research Charities, the general level of medical research is now severely endangered by the current round of stringent cutbacks.

The charities have no voice in the decisions which bring about these changes but seem to be expected to "go to the rescue", he added. Certainly it is hard to avoid the conclusion that the Government has simply come to take the funds of the medical charities for granted. Last year they gave a record £55m to the total of £81m provided by the Medical Research Council for 1980.

Yet, impressive as these figures are, they belie the true importance of the charities to universities. Only about 40 per cent of funding is generally reckoned to be spent at university science and medicine departments. The rest is spent at their research institutes.

The £55m spent by the association of charities comes from its 35 member charities, of which £25m goes to medical care in general, £10m to university departments, and £20m to research. The association membership includes the larger research charities, which implies the total number of these organizations are responsible for providing almost twice the research funding of university biologic-

ical research councils. This assessment is borne out by figures for London University, the city's medical and postgraduate research, a total of £5.09m was provided by all the country's research councils in 1977-78 for fund-

ing projects at these schools either through grants or contracts. This compares with grants and contracts totalling £8.62m which were provided by "other bodies", ie the charities.

So it is clear that universities rely heavily on medical charities to supply a substantial chunk of their medical research funds. And as Government cuts take their rapid toll of staff and equipment in individual departments, it is a reliance that is quickly approaching total dependence.

No longer are the charities being asked to merely supply funds for projects, they are now being asked to fund the very basics of university existence - its manpower. Instead of money being spent on pushing back the boundaries of knowledge, the medical charities' cash is being channelled into the funding of posts and chairs.

For instance, the Wellcome Trust has started to sponsor its own senior lectureship scheme with each post costing £100,000, tying up £2.5m of its funds. Spread over all the charities, this represents a commitment of funds that would normally be used directly in the financing of research crucial to the development of medicine and biological science.

It is a critical dilemma. Medical research cannot be carried out without scientists at university departments and if the University Grants Committee funds cannot supply positions for them, they must be replaced by the charities.

"We used to be asked for money for research projects, such as work in cystic fibrosis, cancer or diabetes. Now we are being asked to endow chairs and lectureships," said Dr Williams.

Although the charities have been prepared to fill the gap created by the Government, there is obviously a limit to the readiness and willingness to stand in for the UGC. If nothing else it is doubtful that many of the private individuals who provide their funds, either in the form of legacies or cash collections, would have been entirely happy.

The association will certainly complain to the Government, but as it is highly unlikely to free more money for higher education, the way out for the association - and universities - remains cloudy and unclear.

Robin McKie

The thinking man's campaign

Delegates to the Campaign for Higher Education conference at the University of Aston were recommended to write for advance copies of discussion papers to an address in Birmingham 13. The house, it turns out, was destroyed by German bombs in 1943.

As well as suggesting the vague air of amateurism which characterizes any organization in its early stages, this pointed to a more potent irony. British academics set about confronting the painful truth that the crisis in higher education did not begin with the UGC letter nor even with the slow compromise of the Robbins principle; that, rather, it was and is an intrinsic part of the wider crisis of post-war British society and can only be dealt with as part of that wider crisis.

Delegates were united by the recognition that they needed to escape the doctrinal squabbles of the Labour Party if they were to have any chance of working toward a much-needed opposition education policy. One specific anxiety, most ably expressed by Andy Pearnman of NUS and Eric Robinson of Bradford College was the internal and historic confusion of DES.

Organizationally, the department now led by Sir Keith Joseph has for years been a shambles; unable to articulate more than a piecemeal and sporadic education policy. The record of the Labour Party, both in power and in opposition, gives little grounds for moral superiority and that chastened recognition was perhaps the most instructive of all. Labour working parties on higher education, science and technology, the Education Alliance and the national body proposal have all pointed toward the recognition that the problems facing the universities and polytechnics are inseparable from a wider structural problem in British society.

As local polytechnics quietly begin to offload polytechnic colleges and as central government cuts back support for the maintained sector, shirkage begins to reveal the skeleton of the problem. Education almost by definition is a system so complex and so intimately connected to a wider social framework that it is likely to be the first place to look for symptoms of social and poli-

Brian Morton on the tentative and nervous discussions which launched the Campaign for Higher Education

modulated tension between centralism and localism, and between "pure" and "applied" standards of value. The divisions between sectors, between institutions, between disciplines and, most crucially, between self-consciously elitist academics and the "maintaining mass" (non-academic workers and students) make up a drama of Hegelian inevitability.

The almost total consensus of support for the Robbins principle (a consensus which even included the Communist Party) disguises the basic problem. Robbins was itself never self-sufficient nor entirely adequate; multi-partisan support suggests that it was already a compromise gesture. It was grafted on to an already overburdened system. Instead of restructuring higher education, it anomalously added an open entrance provision to a system geared (and still geared) to an elitist premise.

Such a provision, morally but not socially correct, could never hope to work successfully while still geared to a single, continuous degree course irrelevant to most working-class students and alien to their future needs. Robbins sought to answer a primary question by answering a secondary one; it extended privilege into a vacuum when it should have attacked privilege itself. The very notion of "higher" education, as Eric Robinson pointed out is one that depends on a system of value we would do well to abandon.

The Campaign for Higher Education has already demonstrated the need to see education as part of a continuous social policy. For too long, Labour governments treated education and the welfare services as more supportive adjuncts to technological revolution, as props for the industrial centre. The present administration has only underlined a bipartisan distrust of education and welfare by treating them not as integral parts of the social whole but as separate and even inimical elements in a fiscal and monetary balancing act.

There is a clear need to frame a policy which is neither a Treasury nor exclusively an "education" policy but which understands the account of wider social needs. The tentative and even nervous discussions at Aston may mark the starting point.

John Co 136

Poets on the podium

The second Poetry Olympics, under the general auspices of Mike Horvitz's *New Departures*, was held at the Young Vic last weekend. The success of last year's gathering at Westminster Abbey as well as a reawakening interest in poetry/music experiments drew encouragingly large crowds to each of the weekend's three "heats".

Saturday's offering included Heathcote Williams, last year's Welsh Kproso, the reggae poet Linton Kwesi Johnson, James Berry, Liz Lochhead from Motherwell, and the acerbic Fran Landesman, accompanied on guitar by her son Miles.

Sunday's session, certainly the most immediately impressive, extended the international emphasis and continued to explore that blend of music and poetry which was once so fashionable and compelling and which lost ground to a new academicism only now overdrawn by its account. Star turns on Sunday were the Russian Andrei Voznesensky and R.D. Laing, as unlikely a piece of billing as could be hoped for. Laing, streetwise and cocky yet with ample reserves of irony, has never quite decided between Glaswegian Ronnie the patter merchant and cosmopolitan RD the urbane intellectual. His range is nonetheless impressive, poetry, prose, fierce little dialogues and quite unselfish piano obbligatos. He also accompanied the other participants, including his wife Julia Laing (who sang a selection ranging from Schumann and Mussorgsky to Cole Porter), Elizabeth Smart, author of *Assumption of the Rogues and Rascals*, David Gascoyne and Frances Horowitz, Voznesensky's translator for the evening.

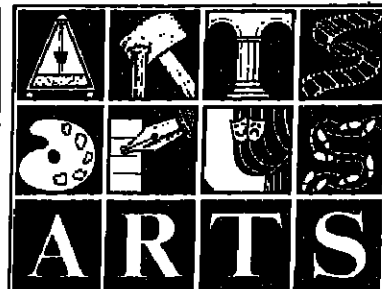
All the surprises, though, were reserved for Monday. Paul Weller, lyricist for The Jam, was paired with Aidan Cant in a selection from *December Child and Riot Stories*. Weller's voice, in the line of Laing, Horvitz and Jeff Nuttall (surprisingly not in evidence) is a haunting blend of punk violence and a direct spontaneous lyricism.

All these figures are united in their hostility to academicism in any form, poetic or political. Perhaps the most representative statement in the *New Departures* volume published in conjunction with the Poetry Olympics is Tom Pickard's "Spontaneous Spoken Poem for an Extraordinary Fellow", directed at George Steiner's glib acceptance of the US nuclear umbrella as a guarantor of freedom and equally at his mandarin attitude to "literature", almost certainly a term of abuse for the weekend's poetry athletes.

Unfortunately, not always is the political so engaging as in Pickard's effusion. The vague internationalism and the constant inner parallels Horvitz makes with "the parallelism of violence and repression" than any vague knee-jerk abstraction. Courage and conviction are not lacking but they have yet to meet. Silver medals all round.

Brian Morton

Information for inclusion in THE'S arts coverage should be sent to: Lynne Truss, The Times Higher Education Supplement, 200 Gray's Inn Road, London WC1X 8EZ.



The Oresteia at the National Theatre opened last Saturday. Here RICHARD ALLEN CAVE traces the growth of Peter Hall's production through its first week of public performance to its culmination in the "wholehearted success" of the opening night. Also BRIAN MORTON reports on this year's Poetry Olympics, held in London last weekend.

From despair to serenity

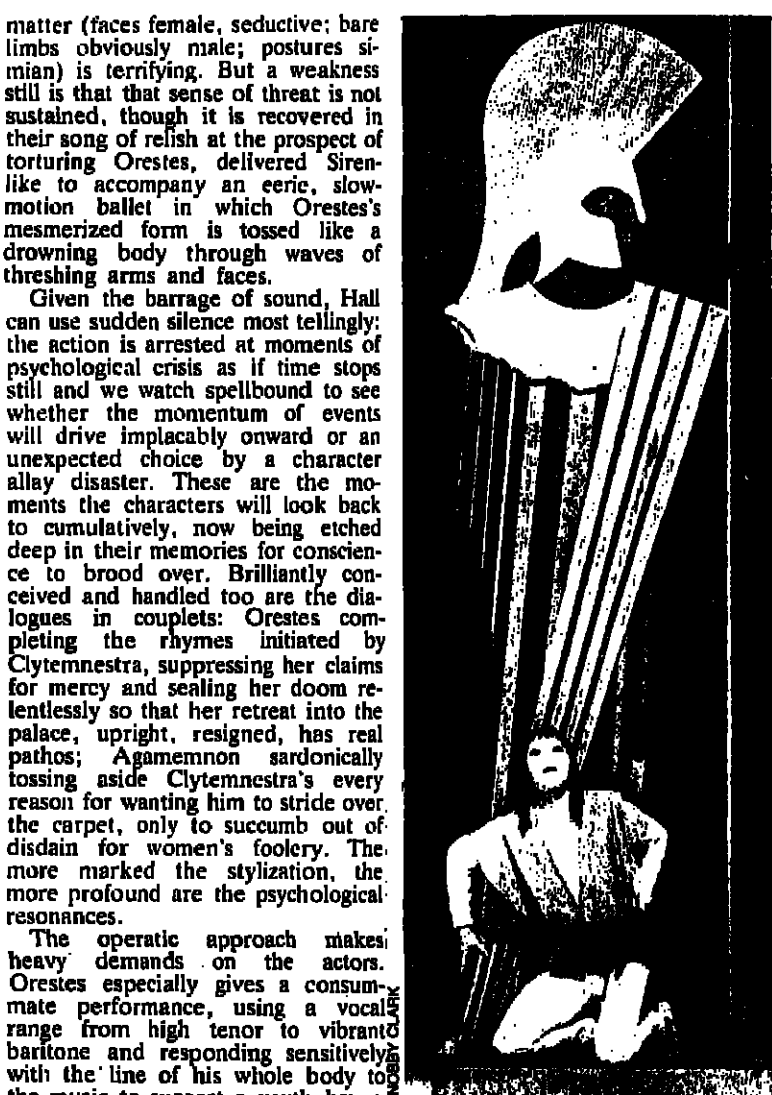
Watching this production grow over a week of previews from a potential to a wholehearted success has been a model lesson in unshakeable commitment: cast and director have ventured into new territories of discipline and stylization that one hopes will revolutionize the future staging of poetic tragedy. What a masterpiece, as the concluding hymn to the peace-bringers soared ever higher, to incorporate the entire audience in the triumphal procession (and so ensure a tumultuous ovation). Sheer theatrical magic achieved a moment of corporate dedication, awesome and exhilarating: it was the zenith of a great arc of emotion from despair to serenity that the 16 actors had defined for us with an exacting precision.

It was bold of Peter Hall to opt for a conservative approach. John Barton's audacious attempt at the RSC to make the *Agamemnon* conform to modern concepts of realism just belittled the play, as did the technical razzamatazz of television's *Serpent Son*. The trilogy is about cosmic principles of order rather than about personalities and this is the dimension Hall restores. The conventions of Aeschylus's theatre are alien to our practice; Hall's breakthrough is in recovering them not as a scholarly curiosity but to set our imaginations and pulses racing. His method is virtually operatic: pounding, alliterative speech (by Tony Harrison) is interlarded, sung, recited with rhythmic stress to a continuous score for percussion, wind and harp (by Harrison Birtwistle), words and music shaping and developing a pattern of leitmotifs. It demands a rapt concentration and one of the growth-points over the week has been an increasing attention to audience-response, a slight slowing of pace and a meticulous enunciation, necessary since the full head-covering masks can, if not skillfully managed, render projection fuzzy, spreading the tone and making consonants echo or rasp. The vocal beauty by last Saturday was testimony to the actors' dedication.

So too was the restaging over the week of the opening of *The Eumenides* to eliminate what initially was an unwise as to the appropriate tone: the horror of the Furies' presence polluting the temple at Delphi risks laughter today and it was right to simplify the action to let the words alone work on our imaginations. The arrival of the Furies with sinisterly looting gait, their shimmering, ragged costumes and hair evoking a seething morass of unformed matter (faces female, seductive; bare limbs obviously male; postures simian) is terrifying. But a weakness still is that that sense of threat is not sustained, though it is recovered in their song of relish at the prospect of torturing Orestes, delivered Siren-like to accompany an eerie, slow-motion ballet in which Orestes's mesmerized form is tossed like a drowning body through waves of threshing arms and faces.

Given the barrage of sound, Hall can use sudden silence most tellingly: the action is arrested at moments of psychological crisis as if time stops still and we watch spellbound to see whether the momentum of events will drive implacably onward or an unexpected choice by a character ally disaster. These are the moments the characters will look back to cumulatively, now being etched deep in their memories for conscience to brood over. Brilliantly conceived and handled too are the dialogues in couplets: Orestes completing the rhymes initiated by Clytemnestra, suppressing her claims for mercy and sealing her doom relentlessly so that her retreat into the palace, upright, resigned, has real pathos; Agamemnon sardonically tossing aside Clytemnestra's every reason for wanting him to stride over the carpet, only to succumb out of disdain for women's foolery. The more marked the stylization, the more profound are the psychological resonances.

The operatic approach makes heavy demands on the actors. Orestes especially gives a consummate performance, using a vocal range from high tenor to vibrant baritone and responding sensitively with the line of his whole body to the music to suggest a youth hovering between adolescence and manhood, his litherness slowly transformed from the effeminate to the virile and resolute. The dirge over Agamemnon's tomb becomes a rite of passage into adult responsibility, the rhythmic beat turning from a heavy monotony to a surging vigour as Orestes and the chorus from arching or ground-bugging postures begin to reach upwards feeding on the ecstasy of revenge. Agamemnon does not manifest himself to answer their pleading but is reborn in his son. The one serious disappointment overall was the Electra-actor, hampered admittedly by an inexpressive and undignified mask, but without the vocal resources to encompass the character's innocence, weariness and degradation. Electra's is perhaps the most difficult role in the work for a



Orestes before the image of Athena.

male actor: the most essentially feminine of the women's roles in a play concerned with the transference of sexual characteristics, it makes the dangers of caricature considerable; voice and gesture here were unrelievedly harsh and angular and the recognition scene quite lacked emotional impact. That one discordant note only emphasized the astonishing virtuosity elsewhere and the rewards of selfless teamwork that have gone into its achievement. It was not that we should end on a note of corporate celebration.

Richard Allen Cave

Dr Cave is lecturer in English at Bedford College, London.

A spoonful of sugar

The eightieth anniversary of the birth of Walt Disney is to be celebrated tomorrow at Manchester College of Education, where a one-day school is to be held. Particular reference will be made to Disney's early work, but there will also be an opportunity to discuss the Disney studio's latest film *The Fox and the Hound*. The school is presented by Robin Allan, staff tutor in drama and film at the college, and Brian Sibley, who recently adapted *The Lord of the Rings* for radio. Fee for the day is £4.00.

In the first two decades of this century Gavin Greig and the Rev James B. Duncan collected over 3,300 tunes and 3,500 texts of folk songs in Scotland. The Greig-Duncan Folk Song Collection is being published in eight volumes by Aberdeen University Press, and the first volume, now available, covers nautical, military and historical songs, together with songs in which characters assume the dress of the opposite sex.

The closing date for The International Student Playwright Competition, to be judged by Alan Ayckbourn, is December 31. Details and entry forms can be obtained from Clive Wolfe, 20 Lansdowne Road, London N10 2AU.

New Approaches to Music, a booklet published by the Arts Council, reports on the educational activities organized in conjunction with the council's 1980-81 Contemporary Music Network tours. The report draws particular attention to the need to dispel some of the myths that surround contemporary music, and suggests that audiences could be challenged and stimulated more, through different forms of participation in discussion, rehearsal and improvisation. The author of the report is Andrew Pegg. It is available from the Arts Council at £1.00, plus 35p postage.

Two playwrights in residence have been well occupied this week. Celia Mortimer at the University of St Andrews has been presenting a number of new plays written by students at the university. At the University of Essex, Paul Goetze's play *Phocrocks* has been presented at the university theatre Underground. Goetze's play is a farcical treatment of CIA, a group of terrorists, the Mafia and the Church of Latter Day Saints. It ends tomorrow.

Monks' tales of wine, women and song

The languages and literatures, the art and history and philosophy of the ancient world are of such unique value that they are worthy of repeated study by each generation. These components of the Greco-Roman culture are so important in the intellectual development of Europe that they are to be studied as part of that development. Initially Latin was the vehicle through which all other subjects were taught and learnt. It was the language of the university and only in the eighteenth century did English begin to supplant it. In early years the study of Latin (and Greek) was auxiliary to philosophy and theology. From the seventeenth century onwards, systematic courses developed in the writings of Greece and Rome, and for centuries the study of literature meant primarily the emergence of other disciplines - historical studies, modern languages, English literature, and most recently, the social sciences - the study of the classical languages has sharply waned. There are, however, signs of revival and even growth.

One of the doors to which Latinists have privileged entry opens into the realm of music. On the one side there is the sacred music in which the great composers have exploited the Latin of the Roman liturgy, or have afforded settings for splendid Latin hymns; on the other side is the music inspired by the secular literature and myths of Greek and Latin literature. One notable composer of more recent times inspired by such secular themes is Carl Orff.

Orff composed music for the lyrics of the Latin poet Catullus, but rather better known is his first major work, *Carmina Burana*. This was written in 1935-6 as what the composer calls a "secular cantata", but it is usually performed as a straight concert work for soloists, chorus and orchestra. Its earlier popularity came to Germany has now spread over the world and one may even have matches of it in TV commercials.

Orff's inspiration here is not of some classical Latin literature. *Carmina Burana* is the conventional name given to an anthology of medieval Latin lyrics contained in the *codex Buranus*, a manuscript discovered in 1803 by Baron von Arnim. It has been called "a cuckoo's nest" in a monastic nest, because many of the love lyrics and drinking songs contained in it are strange and companionable for the biblical commentaries and patristic works which form the staple of the Bavarian Benedictine monastery where the manuscript was found, and after the course of time more and more pieces have been identified as the work of outstanding scholars and poets of the age, including Walter of Chatillon, Hugo Primas of Orleans, the Archpoet who probably hailed from northern Germany, Philip the Chancellor and Peter of Blois. Such men were for the most part outstanding clerics and churchmen, men of wide culture and learning who turned to the composition of Latin lyrics for recreation and relaxation. A few of the offerings in the *Carmina Burana* are mediocre enough to have originated in the tavern, but the great majority have been written with consummate care and skill.

How and why did Carl Orff come to exploit this anthology of medieval lyrics for his first major composition? We know that during the later 1920s and early 1930s he was teaching music at the Goethe-Schule in Munich. The *codex Burana* was lodged at the Staatsbibliothek there. A complete edition of the poems had been published from the manuscript as early as 1847 by J. A. Schmeidler, but as more and more versions of the poems were unearthed in other manuscripts, the need for a more competent edition with commentary became pressing. It was undertaken by two fine Latin scholars, Alfons Hilka and Otto Schumann, in the early 1930s. We may assume that Orff, a great enthusiast for the Latin poetry of antiquity, took an interest in this revival of scholarly work devoted to the *Carmina Burana*.

What Orff did was to take over about 20 poems or stanzas of poems, mostly Latin but a few German, and organize them into his own pattern. The third section is less homogeneous and it is here that we find the songs of drinking and conviviality. This final section includes two short religious plays, the first on Christ's nativity and the second on the flight into Egypt. We do not know the identity of the three main intelligible guesses about how they collected their material. Many of the poems were written down from memory or at the dictation of others for they have been preserved in other manuscripts with much superior texts to those found at Benediktbeuern. Some were copied from other florilegia, or from manuscripts of individual poets, or from music codices, and it is possible to identify some groups of poems set out in a similar order in other manuscripts.

Pierce controversy has raged over the past century about the authors of these twelfth-century poems. Initially the romantic notion was widespread that they were composed in taverns by wandering students (the so-called *Vagantes*) on their way to and from such scholastic centres as Paris, Orleans, Salerno and Toledo. But the course of time more and more pieces have been identified as the work of outstanding scholars and poets of the age, including Walter of Chatillon, Hugo Primas of Orleans, the Archpoet who probably hailed from northern Germany, Philip the Chancellor and Peter of Blois. Such men were for the most part outstanding clerics and churchmen, men of wide culture and learning who turned to the composition of Latin lyrics for recreation and relaxation. A few of the offerings in the *Carmina Burana* are mediocre enough to have originated in the tavern, but the great majority have been written with consummate care and skill.



Composer and subject: Carl Orff and two of the lyrics from the *Carmina Burana*.

P. G. Walsh examines the *Carmina Burana*, a medieval miscellany of Latin love lyrics and drinking songs

First he chose two poems about fortune for his introductory section, which he entitled *Fortune, Empress of the World*. These appear in the block of satirical or moralizing poems; their purpose in the original twelfth-century context was to warn mankind to put no reliance on transient worldly success. Orff's purpose is different; he wishes to stress at the outset that because life's joys are precarious and fleeting we should seize them while we can. The main section, entitled *The Beginning of Spring* assembles ten love lyrics, the first group in Latin and the second in German. For this section Orff selected decorous and innocent poems. His second main section is entitled *In the Tavern*; here four Latin pieces of an amusing sort have been assembled to celebrate the guzzling, gluttonous, gambling and wenching interests of the wandering scholars. In the final main section, *The Court of Love*, Orff returns to the Latin love lyrics, but here he selects ten pieces which explore and emphasize the more sensual and sexual aspects of love. Finally the *Cantiones Profanae* return again to the *Fortuna* poem with which the cycle began, with the purpose of stressing the precarious nature of the joys of life.

There is nothing profound in Orff's message. He has distilled from the medieval songs a theme familiar from lyrics of all ages: "Gather ye rosebuds while ye may." Life is short and precarious, and we must snatch what joys we can from love, comradeship and wine. Though many of these lyrics of the twelfth century do embody the sentiment of *carpe diem*, the message is not so stark or tragic as in the *Odes* of Horace, for whom death is the end; in the medieval lyrics, this is tempered by a Christian salvation. Orff's task was to compose music which would capture the part-magic which would capture the flavour of the lyrics, and he achieved this by synthesizing elements of Gregorian chant with the uncomplicated rhythms of folk music. The result is a happy combination expressing the pleasures of youth in romantic harmonies and staccato rhythms.

By contrast the measures of Horace or Virgil seem cerebral, almost austere. In his teaching at

omnia sol temperat
purus et sublimis
novo mundo reserat
faciem Aprilis;
ad amorem properat
animus herilis
et iocundis imperat
deus puerilis.

si puer cum puellula
moraretur in cellula
felix coniunctio.
amore succrescente
pariter e medio
avulso procul tedio,
fu ludus ineffabilis
membris, lacertis labiis.

The sun, now shining clear and bright,
Brings warmth to every place
Upon a world restored to light
Unbaring April's face.
Our lady Venus' eager heart
Makes haste to win love for us
Young Cupid likewise plays his part
Instructs his happy chorus.

If a boy and maiden fair
Linger in a garret bare
Blessed is their close embrace;
As the love swells in their hearts
All weariness departs
Relegated from that place.
Sport beyond all telling grips
Their lower limbs, their arms, their lips.

Munich, Orff had adopted the educational theories of Jacques Dalcroze, the Swiss composer, whose methods were designed to make the feeling for rhythm a physical experience. So Orff avoids harmonic variation and his philosophy of basic rhythm lends a strong impact to the rhythm of the rhyming stanzas. Orff's intention in his first two sections is to contrast sexual innocence and sensual experience, and his separation of the two encourages us to generalize about two different attitudes to love which lie cheek by jowl in the poems of the *Carmina Burana*. The love lyrics of the first main section, *In the Springtime* are variations on a single theme: the harmony between nature and the growth of love in the hearts of the young. We find such conventional motifs as the banishment of winter, the warmth of the sun, the budding of trees, the profusion of colour in the meadows, the glad symphony of the birds; correspondingly, there is springtime in the hearts of mankind. Had this formula been slavishly followed, the effect would quickly have become cloying. The twelfth-century poets devoted much ingenuity to working changes on the theme. Some lyrics concentrate almost wholly on the beauties in nature, introducing the love element only in the most incidental way; others devote a single stanza to nature and devote the rest of the composition to an exploration of love. The normal pattern may be turned on its head; a poem may begin with the sorrows of love, which are then consoled by the beauties of nature. As further variation, a poem may be declaimed by the girl, or by a boy whose innocence is troubled by the deeper stirrings of love or by innocence posing as experience.

The poems selected by Orff in this first section are well chosen to reflect the decorum of innocent youth. It is useful to remember here that the great mass of these poems were written by clerics for the entertainment and edification of other clerics; there was no mass readership. The canonical regulations governing clerics dictated that they could not marry when in order. Many of the clerics who composed the poems were already in orders; many who were not were seriously contemplating taking them as this was the one sure way to ecclesiastical advancement. The kind of love thus favoured was morally refined and innocent, the *amor clericalis* of men for whom marriage was unthinkable. Sex is rejected as unworthy and marriage relegated to the same category as harlotry.

For his second section, Orff chose four convivial poems. The lament of the roasted swan on the salver as it eyes the champing teeth of the diners ("denies freudentes video") celebrates the joys of feasting; the Abbot of Cockaigne (from whose

name "cockney" is said to come) invokes the spirit of gambling; and *In taberna quando sumus* is a drinking song deriving its humour from parody of the Roman liturgy. Superior to any of these is the Archpoet's *Confession*, of which Orff uses only the first five stanzas. Here the Archpoet dons the mantle of the prophet Job and of the author of the Book of Wisdom to assume a garb of repentance; he recounts his sins of wenching, dicing, drinking by evocation of Ovid and Horace, and by parody of scripture and liturgy; finally he exploits the epistles of Peter and Paul to proclaim his intention to recant.

In Part Three Orff returns to the love theme, but in deliberate contrast to the idealized portrayal of the first section. His title, *The Court of Love*, suggests that Orff took an informed interest in what has since become the most celebrated of all medieval literary controversies, the problem of courtly love. Orff was working on the *Carmina Burana* at exactly the same time as C. S. Lewis was writing his famous *The Allegory of Love*, a seminal work which proclaims that courtly love first came into existence in twelfth-century Provence with the songs of the troubadours. Many of the strands which intertwine to form the fabric of courtly love - love as the source of all good, the reverence owed the beloved, fidelity, discretion, prudence and the distinction between love and formal marriage - are to be found codified, as it were, in a Latin treatise of the late twelfth century, the *De Amore* of Andreas Capellanus. The work glorifies courtly love as a secular ideal and, in descriptions of courts like Poitiers and Champagne, under Eleanor of Aquitaine, Marie and others, suggests that ladies at these courts were enjoying a wholesale sexual emancipation.

In recent years historians have been able convincingly to refute not only the existence of such twelfth-century courts but also any suggestion that courtly love could have been an historical phenomenon of the feudal, Christian world of twelfth-century France. But *l'amour courtois* maintains a vigorous literary existence, not only in the emergent vernacular literatures of western Europe but also in the Latin lyrics of the twelfth and thirteenth centuries.

To what extent Orff's one-sided selection represents the full flavour of the original remains doubtful. In so far as the question can be answered we have to say that Orff has consciously omitted a whole religious dimension. In essence the message that emerges is a pagan message and one that subtly manipulates our image of the medieval period. It distills the world view of a Horace rather than an Abelard.

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Events

EXHIBITIONS: continuing. Ends tomorrow. Gallery, Mrs. Robert Arts Centre, University of Strirling. Helen P. Wilson: *Paintings, Drawings and Surprises*. Until December 8. Crewe and Alsager College of Higher Education. *Artists of the First World War*. Until December 13. National Gallery of Scotland, Edinburgh. *Poussin: Sacraments and Bacchanals*. Until December 21. Crawford Centre for the Arts, University of St Andrews. *Super-Humanism: the human single as presented by artists from the Nicholas Treadwell Gallery*. Until December 22. Institute of Education, London. *St. Children Draw and art from Oley Adult Training Centre for mentally handicapped people*. Until December 24. Collins Exhibition Hall, University of Strirling. *Architecture: Accident or Design?*. Until December 24. Impressions Gallery of Photography, York. *Youth*

Unemployment in the West End of Newcastle: photographs by Tish Murtha; *Spirit of My Country:* documentary exhibition of a small Polish community in the Midlands, by Jan Siegiel.

Until January 3. Ashmolean Museum, Oxford. *George Mackay: Wood Engraver*.

Until January 10. Museum of Modern Art, Oxford. *Whisor MacKay: Little Nemo in Stumberland and other cartoons*.

EVENTS: Luncheon today. Great Hall, Goldsmiths' College. Children's concert. Today and tomorrow. Film Theatre, University of Strirling. *The Elephant Man* directed by David Lynch.

Today and tomorrow. Jowl Theatre, Plymouth. Check by Jowl Theatre Company in Wycheley's *The Country Wife*.

Tomorrow. St. Andrew's Hall, University of East Anglia. UEA Choir and Philip Jones Brass Ensemble, in a programme that includes Vaughan Williams' *Mass in G minor*.

Monday December 7. Centre for the Arts, Aston University, Birmingham. Philharmonic Orchestra with Valerie Pither (piano), conductor Kenneth Page. Mozart and Strauss.

Monday December 7 to Wednesday December 9. University of Surrey. *Codgell* presented by the Surrey Society.

Monday December 7 to Saturday December 12. Gaumont Theatre, Southampton. Welsh National Opera.

Tuesday December 8. The Art Workers' Guild, Queen Square, London. Helen Day lectures on *Showmen Scientists of the Nineteenth Century*. One of a series of lectures organized by the Society for Theatre Research.

Wednesday December 9. University of Surrey. Luncheon concert: University singers and players.

Wednesday December 9 to Saturday December 12. Centre for the Arts, Aston University. *The Speakers* by Heathcote Williams, presented by the Studio Company.

Wednesday December 9 to January 23. MacRobert Arts Centre, University of Strirling. *Aladdin*, starring Helen Schapiro.

Wednesday December 9. Film Theatre, University of Reading. *A Woman of Paris* directed by Charles Chaplin.

Thursday December 10. The Music Room, Imperial College, London. Lunchtime concert. The George Caird Oboe Quartet.

Thursday December 10. University of Lancaster. John Arran (guitar) and John Harper (electric guitar) present *Contrasts*: a sequence of music from five centuries.

Thursday December 10. The Diamond, New University of Ulster. Christmas concert by the King's Singers.

Friday, December 11. Guildhall, Southampton. Southampton Philharmonic Society, Southampton University Choral Society and Bournemouth Symphony Orchestra present Beethoven's *Mass Solemnis*.

Friday December 14 to Saturday December 19. Centre for the Arts, Aston University. Joint Studio Theatre Company present *Haunt*.

Kureishi's play *Outsiders*. Tuesday December 14 to January 9. Riverside Theatre, New University of Ulster. *Phinocchio*.



The great political cartoonists of the reform era appealed to the privileged and powerful rather than the labouring poor, argues Harry Dickinson

A good line in satire



James Gillray, "The Dissolution of the Alchemist producing an Aetherial Representation."



George Cruikshank, "A Free Born Englishman"

The century from the 1730s to the 1830s is well known as the great age of the English satirical print. The majority of these prints were devoted to political subjects, but political historians have largely ignored this major source.

Art historians have written at length about the products of the greatest graphic artists, engravers and caricaturists. There are many excellent books on William Hogarth, James Gillray, Thomas Rowlandson, and George Cruikshank, but next to nothing has been written about popular and influential artists of the second rank such as James Sayers, William Dent, Robert Seymour and John Doyle.

The vast majority of satirical prints have never even been perused by most historians working on the period when they were produced. Dorothy George, who edited the last six volumes of the British Museum's catalogue of its holdings of personal and political satirical prints, did produce a two-volume study of *English Political Caricature* (Oxford, 1959). Valuable though this study is, it only manages to survey some of the very best prints and to point out the need for many more specialist studies. Herbert Atherton has met this need in one area with his excellent monograph, *Political Prints in the Age of Hogarth* (Oxford, 1974), and John Brewer has produced a brilliant study of the caricatures attacking the Earl of Bute. Little else has been accomplished and there is a clear need for a more systematic and thorough exploration by historians of the English satirical print.

A major reason for the neglect of this important and fascinating historical source is the sheer bulk of material available and its relative inaccessibility. The department of prints and drawings in the British Library has much the best collection in Britain - with well over 15,000 satirical prints for the period from 1730 to 1832, which would take any historian several weeks of study in London just to glance over it. Fortunately, with the publication of a complete microfilm record of this material by the Cambridge publishing firm of Chadwyck-Healey, it is now possible to study this magnificent collection in many other places than London.

The political print, like the political press in general, developed and matured in a society in which large numbers of people were intensely interested in public affairs and in which political decisions were increasingly reached by the forces of persuasion and opinion. As politics gradually became more open so the need grew to influence the increasing number of participants by every possible form of propaganda.

The century from the 1730s to the 1830s witnessed an astonishing growth of the political press in Britain until it had become a veritable fourth estate of the realm. The graphic print or caricature never matched the total sales of the political newspaper press, but it did experience a major growth in sales and influence, and for very much the same reasons. About 3,000 satirical prints appeared between 1730 and 1760, a further 6,000 between 1760 and 1800, and well over 7,000 more by 1832.

Spectacular production rates for political prints were always reached in years of political tension. An average of six to ten political prints appeared each week in 1770, 1784, 1820, 1830, 1831 and 1832. In these particular years the sale of political prints not only benefited from the high level of public interest in politics, but from the opportunity to capitalize on the dramatic involvement of particular personalities.

In 1770 it was Wilkes and Liberty in 1784 it was the intellectual rivalry

between Pitt and Fox, in 1820 it was the notorious trial of Queen Caroline, while between 1830 and 1832 it was the confrontation between Wellington and Grey, which provided such superb material for the caricaturists.

Clearly, satirical prints sold best in years of political crisis; but who bought them? It has sometimes been suggested that the political prints reached a mass audience and could reach the illiterate sectors of the population more effectively than any other product of the political press. These claims are easily made but difficult to verify.

The available evidence suggests that most prints had rather a limited circulation among the political elite and the propertied middle classes of the metropolis, but that some prints did succeed in reaching a much wider audience.

The majority of satirical prints probably sold around 500 copies each, with the more popular and professional prints reaching sales of perhaps 1,500 copies. A few satirical prints did have exceptional sales. Hogarth's famous portrait of Wilkes, as a cunning and impudent demagogue, sold about 4,000 copies within a few weeks in 1763. Benjamin Wilson's caricature on the Stamp Act, a print that was much pirated, may have sold as many as 16,000 copies in 1766.

Engraved illustrations in magazines and pamphlets could occasionally reach a mass audience. In 1819 George Cruikshank produced a dozen small prints for William Hone's *The House that Jack Built* and in 1820 he produced an illustrated verse satire, *The Man in the Moon*, for the same radical publisher. Both of these works may have sold as many as 100,000 copies each and they were probably seen by many more people than the number who purchased them.

For social and geographic reasons most satirical prints could have reached only a restricted market. Nearly all the prints were produced and sold in the metropolis. In the later eighteenth century the cost of a print was usually sixpence plain and one shilling coloured. By the early nineteenth century these costs had usually doubled. These prices were well beyond the means of the lower orders and perhaps of many of the lower middle classes in the provinces.

While it is true that there are several contemporary references to crowds gathering outside the shops of print-sellers, attracted there by the opportunity of freely perusing the caricatures in the windows, it must be remembered that there were less than ten such shops and they were all in London or Westminster. They could hardly have attracted huge numbers to their windows.

There are other indications to suggest that most prints were not perused by the labouring poor. Many prints included some writing and most assumed a high level of political intelligence and knowledge. Even the social prints were preoccupied with the actions and lifestyles of the propertied classes. Only a minority paid any attention to the lowly, and preoccupations of the lower orders and, when they did so, they almost invariably portrayed them as ignorant, rapacious and irresponsible.

When the middle classes feared revolution they sometimes pasted political prints on the walls of taverns, shops and workshops in an effort to influence the poor. In the 1790s both loyalist organizations and radical societies subsidized the cost of producing political prints in order to bring them within the price range of the lower orders. On some occasions

therefore satirical prints were perused by large numbers of the labouring classes.

Both active politicians and committed radicals believed that political prints could serve a propaganda purpose and they were prepared to hire professional artists to engrave satires to order. Some political activists produced their own prints.

Political prints were not just produced by those who desired to shape public opinion towards a specific end. A growing proportion of prints was produced in order to sell at a profit to a public already involved in a political debate or ready to be interested in a whole range of political issues.

Professional caricaturists and specialist print-sellers were ready to produce prints to order, but they were also conscious of the need to respond to political events which were already exciting public interest.

Indeed, since they could not always afford to wait upon events they endeavoured to find, even to manufacture, subjects upon which they might comment. They were prepared to tailor their satires in order to appeal to different audiences or to satisfy the changing moods of the same market.

Artists of the calibre of Gillray and Cruikshank were frequently highly critical of corruption in high places and of the abuse of power and yet also often hostile to those who campaigned for radical reforms.

Sometimes the professional caricaturists sought to instruct their buyers in what to think about a political issue. More often they encapsulated public opinion in their satirical prints and fed this back to the political elite who dominated the decision-making processes of the state.

Sensitivity to the public mood was necessary for professional survival. Nonetheless, even when they were providing a large public with what it wanted, the caricaturists were increasing public knowledge of political issues and were helping to create a large market for subsequent political prints.

In seeking maximum impact and in endeavouring to reach as large a market as possible, the print-makers were constantly trying to improve their skills and to popularize their craft. The traditional emblematic style of engraving, with its intricate and complicated message, its involved symbolism and its explanatory verses or keys, gradually gave way to bolder and simpler designs which had a more immediate appeal to the eye.

Coloured versions of prints also became increasingly common. Light etching, which allows for more freedom in design and execution, began to replace deeper engraving by the later eighteenth century. By the 1820s lithography and wood engraving began to challenge the supremacy of etchings and copper engravings.

Throughout the whole period satirical prints were dominated by the caricature in which personalized political attacks were made through artistic distortion. The character and appearance of public figures were exaggerated in a burlesque or grotesque way. In political caricatures, wit, satire and acrimony, violence, and even pornography were all used to produce a dramatic design and immediate visual impact. Coarse, vulgar, earthy vulgarity and savage humour were well suited to the critical purpose of most satirical political prints. Only very occasionally did political prints bestow compliments or defend particular policies. They were more effective when they employed ridicule or aroused hate.

Political prints were persuasive precisely because their imagery was vivid and concrete. They were powerful as weapons of personal or



and as a medium for expressing complex issues in a direct and simple form. Political prints argued by analogy, appealed to authority and tradition, and relied heavily upon symbolism and rhetoric.

Virtues and vices were depicted most effectively when they were given human or animal form. Liberty was portrayed as a woman with a cap and pole, Justice carried her sword and scales, while Britannia bore a shield and spear. John Bull came to personify England and the English. Portrayed occasionally as a bull, but more often as a burly, square or citizen of simple manners with hearty appetites, he was the personification of independence, courage, patriotism and stoicism.

Animals of various kinds appeared in the prints to represent human qualities: asses personified stupidity, lions valor, serpents guile, bulldogs resolution and foxes treachery. Some public figures were occasionally given animal form to heighten the satire. Charles James Fox was, not surprisingly, depicted as a fox in many prints. Francis Burt was commonly a goose and William Pitt a porcupine. The enormous popularity of Earl of Bute appeared as a jackboot in a great many prints.

Political dangers were also expressed in concrete form. The threat of arbitrary power was often made vivid and manifest in huge castles and seven-headed hydra. Devils, demons, and imps were employed to suggest subversion, while the jaws of hell and the dangers of revolution.

In the same way political institutions were frequently represented as a temple or some kind of structure, while the state was often depicted as a ship. The enemies of the constitution were generally portrayed as attacking on Magna Carta, the Bill of Rights and Habeas Corpus.

By the same token anything which could not easily be satirised, simplified or rendered concrete for dramatic effect was largely ignored by the caricaturists. Constitutional and radical ideology, which was much debated in the press, was treated only superficially in the prints.

The dangers of revolution were depicted, but the caricaturists found it difficult to portray the benefits of reform or the organizations by which political changes might be achieved. The abuses of those in authority were frequently depicted, but not so the positive aims or the political methods of the reformers.

Satirical prints undervalued the impact of the American Revolution and the Industrial Revolution on the reform movement, but they quite accurately reveal the enormous influence of the French Revolution on political thought in Britain.

Political prints were overwhelmed by events at home and abroad, in Parliament and in the metropolis. They underestimated public opinion in the provinces, particularly the Midlands. There is almost nothing in the prints to illustrate the impact of trade unions and political societies or the industrial revolution and urban riots involving the labouring poor.

The strengths and weaknesses of the satirical prints are clearly revealed when they are explored as weapons of ideological attack. The attitudes to politics held by conservatives and

radicals in the late eighteenth and early nineteenth centuries.

A great many caricaturists evidently admired Britain's balanced constitution and wished to preserve it from subversion from within or assault from without, but they found it very difficult to depict the virtues of the constitution in their prints. The complicated relationship of King, Lords and Commons was almost impossible to represent in visual form. Some caricaturists depicted the constitution as a temple supported by three pillars inscribed with the three words King, Lords and Commons.

A more elaborate attempt was made by the engraver of *The Palace of John Bull* (1820). On the dome of his temple he had Britannia placing the statue of Liberty, while within the temple the king was enthroned between Justice and a parson. When James Gillray wished to portray the Younger Pitt as the trusted defender of the constitution against its enemies, he produced a print, *Britannia between Scylla and Charybdis* (1793), which showed the Prime Minister steering the ship of state between the rocks of democracy and the whirlpool of arbitrary power.

In the satirical prints the leading reformers and radicals were frequently attacked as ambitious men posing as disinterested patriots, as foolish men putting forward impractical schemes, or as dangerous fanatics plotting violent revolution. Although the caricaturists depicted individual radicals far more frequently than radical organizations, whenever they did take notice of the latter they almost always depicted them as subversive threats to duly constituted authority. The suppression of the radical societies in the late 1790s was met with approval from the caricaturists, while the moderate Foxite Whigs continued to be labelled in many satirical prints as supposedly endorsing revolutionary principles.

Reformers and radicals were frequently portrayed preparing the way for a French invasion and the forcible introduction of French principles. Numerous prints warned the nation of the horrors which would befall it should its cherished constitution ever be exchanged for the French model. Violence, tyranny and poverty would be the immediate results. Individual liberty, private property, the established church, and law and order were all shown as potential victims of English radicals and French revolutionaries.

The more sophisticated intellectual arguments brought forward by such conservative thinkers as Edmund Burke did not find their way into the satirical prints. The caricaturists could depict radicals as fierce, ugly, poor, irresponsible and foolish and they could point out the consequences of revolution in dramatic, concrete form, but they were incapable of destroying the intellectual foundations of the reformers' arguments. Instead, they expressed hate, incited fear, and occasionally rejoiced in the repressive measures taken against the radicals.

While the great majority of satirical prints were hostile to radicalism, a very large number of them were also critical of the abuse of power by those in positions of authority. Excessive royal patronage, ministerial arrogance, electoral corruption, high taxation and infringements of the liberty of the subject all proved to be

George Cruikshank, "A radical reformer - a neck or nothing man" (top left); "The Belle Alliance, or the Female Reformers of Blackburn" (top right); "The system that works so well" (right).



large and irresistible targets for the caricaturists. The Earl of Bute was frequently condemned for monopolizing crown patronage and for using it to enlist impoverished, dependent Scotsmen in his cause. Lord North was shown bribing MPs, while the Younger Pitt was often portrayed distributing money and offices to hordes of soldiers and placemen. Numerous prints depicted John Bull collapsing under the weight of enormous taxes or under the burden of a swollen and extravagant executive.

The caricaturists were in their element when faced with the task of attacking arbitrary authority. Just as the satirical print was well suited to personalizing the threat posed by leading radicals so it was an appropriate weapon for castigating the abuses of tyrannical ministers. Several of the leading caricaturists managed to condemn both the dangerous aims of the radicals and the arbitrary practices of those in power.

James Gillray, the scourge of the radicals, was also a severe critic of ministerial ambitions. *The Dissolution; Or - The Alchemist producing an Aetherial Representation* (1769), Gillray portrayed Pitt sitting on ministerial tyranny. In probably the most all-embracing critique of ministerial ambitions, *The Dissolution; Or - The Alchemist producing an Aetherial Representation* (1796), Gillray portrayed Pitt sitting on military barracks before a furnace on which the House of Commons is dissolving in a glass retort. Magna Carta, the Bill of Rights, the ancient constitution, the House of Commons, all collapsing. Pitt was a bellows formed by a royal crown and beside him in a scuffle of "Treasury Cords" heaped with guineas. In the vapour of the glass retort a new House of Commons is already forming with Pitt on a throne inscribed with the words "Perpetual Dictator" and MPs prostrating themselves before him.

The repressive measures of later governments, particularly in the years from 1815 to 1820, produced some classic prints. In George Cruikshank's *Liberty Suspended* (1817) three of the most reactionary members of the most reactionary ministry - Castlereagh, Eldon and Ellenborough - sit astride a dismantled printing press. They reveal to a crowd of sycophants and pensioners

the hanging body of Liberty which is clutching Magna Carta, the Bill of Rights and Habeas Corpus and which is gagged with the government's recent "Gagging Bill". The majority of caricaturists swung behind the reformers for the first time in 1819-20 because of the widespread popular indignation created by the massacre of Peterloo and George IV's determination to destroy his wife's reputation in order to prevent her being crowned.

It was easy for the caricaturists to portray ministerial tyranny, but they paid little heed to the deficiencies of the electoral system; deficiencies which were fully explored in newspapers and pamphlets. The caricaturists were chiefly interested in election contests in and around London. These were untypical since the electorates were large and contests were common. The satirical prints were more concerned with the personalities of the contestants and the issues which they personified than with the defects of the electoral system itself.

A number of prints did portray the open corruption of voters by wealthy candidates, but the caricaturists found it difficult to put forward the sophisticated arguments in favour of a more democratic system of representation. George Cruikshank eventually managed an effective indictment of the electoral system in *The "System" that "Works so Well"*. *Or - The Boroughmongers grinding machine* (1831). This print depicts the House of Commons as a decayed mill, whose water wheel is labelled with the names of rotten boroughs and from whose spout pours forth a stream of pensions, places, contracts, etc.

The satirical prints not only fail to do full justice to the intellectual arguments for political reform. They also ignored almost all the organizations campaigning for reform. There are a couple of prints on the Association Movement of the early 1780s and the London Corresponding Society of the 1790s, but none on the Wilkite organizations or the widespread provincial reform societies of the years after 1815.

On the other hand, when the debate about parliamentary reform in-

tensified in the late 1820s and reached a crescendo in the early 1830s, the satirical prints explored almost every aspect of it more thoroughly and more effectively than any previous political crisis. The decline and eventual defeat of the Tories in 1828-30 marked a profound shift in the political sympathies of the majority of satirical prints. Criticisms of the Tories and support for parliamentary reform were now the dominant subjects of the prints.

Wellington's towering prestige and his opposition to reform inspired a large number of hostile prints which projected him as an authoritarian militarist and as an overmighty subject. As the economic situation worsened Wellington and the Tories were accused of indifference to the distress which began to afflict large sections of the population.

The caricaturists did now manage to transcend the old themes of ministerial tyranny and John Bull's heavy tax burden. For the first time the prints fully explored the defects of the whole electoral system. The output of political prints reached its peak during the crisis over the Whig efforts to pass a Reform Bill in the parliaments of 1831-32. The satirical prints were now overwhelmingly pro-reform although all political views were represented. Although most prints supported the moderate Whigs, the fear of revolution was still so powerful among the caricaturists that they could not bring themselves to support radical reform.

The satirical prints also revealed once again their relatively narrow social and geographic range. The caricaturists largely ignored the activities of the powerful provincial political unions and the pressure exerted by the organized working-class groups both in the capital and in the provinces. They concentrated on the behaviour of the King and the decisions of the leading politicians. In doing this, however, their interpretation of what political forces really mattered has been endorsed by Michael Brock, the most recent historian of the Great Reform Bill.

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BOOKS

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Mrs Thatcher, as she dances down the primrose path of Anglo-Irish cooperation, ought to take an occasional prudent glance over her shoulder at Scotland. It was, after all, an uproar in a Scottish kirk in 1637 which ignited civil war in all three kingdoms, brought a proud minister and a haughty prelate to the scaffold, and toppled a monarch from his throne. And among the manifold complexities of that dreadful period none was more significant than the interaction of events in Scotland and Ireland.

At its simplest, this interaction is a fact of geography rather than history. Torr Head in County Antrim is a mere 13 miles from the Mull of Kintyre, and from the earliest times bonfires have blazed on the headlands to signal a warning or summon help. The first inhabitants of Ireland came by this route, to settle near the flat-rich beaches above Larne. In later times the Macdonnells, Lords of the Isles, established a formidable thalassocracy on both sides of the North Channel, and Scots mercenaries, the famed "yellowbells" and "redshanks", fought for their chiefs in Ireland and often settled there. In the sixteenth century the Tudor monarchs were much vexed by the problem of troublesome Scots in the Glens of Antrim. But James VI's policy was to bring his countrymen into Ulster wholesale, while his courtiers Hamilton and Montgomery established their own free enterprise plantation in Antrim and Down. These new planters were Protestant, whereas the earlier Scots had been Catholic, and as the seventeenth century progressed the former identified politically with the Presbyterian majority in Scotland, and the latter sided more and more with the native Irish.

Scots clergy like Robert Blair and John Livingstone came to Ulster when they got into disputes at home, and persecuted ministers in Ulster fled regularly to Scotland. In the "Killing Time" of the 1680s the hunted covenanters took refuge in the uplands of Antrim. Before the Siege of Derry and again in 1798 (though they were themselves deeply involved in that rebellion) Ulster Presbyterians found shelter for their children and womenfolk under upturned boats on the beach at Stranorlar.

It was a long history of mutual help, but nowhere more clearly seen than in the 1640s. On October 23, 1641 (a day which for over a century would solemnly be commemorated in Ireland) the Catholic Irish rose in rebellion and overwhelmed the Ulster plantation. At first they attacked only the English settlers, thus giving the Scots time to organize some kind of rudimentary defence before their turn came. Even the Macdonnells raised a regiment, but in the circumstances it was impossible to hold it together. The Catholic officers changed sides, claiming that the Protestant officers ("those captains of yours whom you may call rather cowboys") meant to massacre them and their families. In Scotland the covenanters, who had brought Charles I to a standstill after two rounds, saw the Irish rebellion as an



The taking of the Castle of Artane, 1641.

immediate political threat, especially since it was centred in Ulster. Twice an army had been prepared, once by the Earl of Antrim and once by Strafford, to invade Scotland from Ireland but the plan was temporarily abandoned after the latter's execution in May 1641. The Scots now offered to raise an army of 10,000 men to help the King suppress the rebellion in Ireland, and after interminable delay, caused chiefly by the mutual suspicions of Charles and the English Parliament, it was embodied under the command of Sir Alexander Leslie, Earl of Leven. His effective commander, however, was Major-General Robert Munro, a hard-boiled veteran of Swedish service and author of *The Scotch Military Discipline learned from the Valiant Swede* and it is as Munro's Army that it entered the history books. Not that the history books have much to say about it; it has usually been ignored by historians of England and Scotland, and strangely neglected by historians of Ireland. The first extended study of it forms the central part of David Stevenson's *Scottish Covenanters and Irish Confederates*.

This is a very good book, and technically a very exciting one, because Dr Stevenson, who is senior lecturer in Scottish History at the University of Aberdeen, has attempted more than just a history of the Scots army in Ireland. On its own that would have been a most useful addition to Irish historical scholarship, but Dr Stevenson has added to it by exploring, most rewardingly, the very complicated texture of relations between Scotland and Ireland against the background of the three almost simultaneous revolutions. It is a period of such complexity that most historians turn from it with a shudder - for one thing nearly everybody changes sides at some point - and it requires a rare and special authority in both Scottish and Irish history to write of it with assurance. Dr Stevenson has the qualifications, and is aware that he has the field virtually to himself. His book is a fine piece of scholarship, soundly based on extensive research, and though densely factual it is eminently readable.

Munro and his men landed at Carrickfergus on April 3, 1642. His commission was from the King; his instructions were from the Scottish Council and his pyrrhic was the confusion in this arrangement was considerable. Munro joined up with the British forces (those raised by the settlers) and conducted a number of indecisive campaigns in which he learned that the best way of coming

to grips with an elusive guerrilla enemy was to attack his food supplies in the form of the slow-moving "creaghts", the guarded herds which invariably accompanied the Irish soldiers. Down, Antrim, Londonderry and much of Tyrone were recovered, and the morale of the plantation sustained. And the Scots Army did something else which was of immense significance for the future of Ulster. On June 10, 1642 the chaplains of the regiments met at Carrickfergus to constitute the first official presbytery in Ireland. In the lines of a latter-day poet:

On Carrick's old and storied walls they hung the Banner of the Blue,
And worshipped in their simple faith as Presbyterians do.

But late one June evening in 1645 the Irish leader Owen Roe O'Neill fell upon Munro's army at Benburb and totally routed it. Munro escaped to Lisburn, leaving behind his hat, wig and cloak, along with his entire baggage and 32 stands of colours. He was philosophical about his defeat:

"For ought I can understand, the Lord of Hosts had a controversy with us to rub shame in our faces his advantage, however, and the Scots Army retained a power in the land until finally disbanded in 1648. While all this was going on, an Irish Catholic army raised by the Earl of Antrim was fighting alongside Munro's options. After an unbroken run of six successive victories in 1644-45 the Irish fell victim to the tortuous pattern of the political situation. Many were killed down and executed, and those that survived regained Ireland and joined the Confederate Irish forces. When this long dark period of political and military confusion ended with Cromwell's brisk one of the Scots officers settled permanently in Ulster, though six of them had married Irish wives. "Honourable" Major-General Munro, much given to melancholia, died of his wife's estates in County Down about 1680.

One of the themes of Dr Stevenson's book is the survival of the Scots' plantation in Ulster through all the vicissitudes of the civil war period. Its entire history is spanned alliteratively by the title of a volume of essays published in honour of Professor J. L. McCracken, who retired from the Chair of History in the New University of Ulster in 1979. The *Festschrift*, with its diverse themes and limited reader appeal, is becoming difficult to publish, and it is so often redolent of the worst kind of academic pomposity that one wonders sometimes if the recipient really welcomes it or dreads it. *Plantation to Partition* is, however, an extraordinarily attractive one, both in presentation and content. It cheats mildly, for not all the contributors were the professor's pupils, and his own work is by no means confined to Ulster history - he is probably more widely known for his works on the Cape Parliament and on Dáil Éireann, the Parliament of the Irish Republic - but the range and character of the contributions convey not only the high standards which Leslie McCracken has always set as a scholar and as a teacher, but something of his personality, his kindness to younger scholars, his wisdom and tolerance, and a quality which one can only describe as elegance.

Professor Aidan Clarke of Trinity College, Dublin, takes a new look at the genesis of the Ulster rising of 1641, and he will be cross with me for saying, at an earlier point in this review, that the Irish Catholics rebelled in 1641. Some, not all, Catholics took up arms in 1641, he argues, and they were not in rebellion, since they invoked the lawful authority of Charles I, King of Ireland by virtue of Irish parliamentary statute. One takes the point: to speak of rebellion in the confused circumstances brought about by Charles's incompetence is perhaps only a convenient *facon de parler*. What also does one say? To the assisted Protestants it must have seemed like rebellion, and not just a "rearrangement of the elements of Irish society". R. J. Hunter and A. P. W. Malcolmson contribute excellent vignettes of one of the original planters and the descendant of another. Dr Hunter's subject is Sir Ralph Bingley, an English soldier whose complex land dealings made him master of estates in the Lifford area. Dr Malcolmson portrays Arthur Hill, second Marquess of Downshire, the most powerful political magnate in late eighteenth-century Ireland, whose opposition to the Union stripped him of influence and possessions. In 1799 the Lord Lieutenant thought it prudent not to enter County Down lest that proud Levantine, Lord Downshire, should call it a declaration of war. Here he is seen as a gentle Levantine, who made rather a mess of things through bad tactics and timing.

One of the most interesting essays is S. J. Connolly's study of Catholicism in Ulster, 1800-1850, which

shows that the social inferiority generally ascribed to Ulster Catholics is not reflected in church establishment during the period, and that in most aspects of Catholicism Ulster compared favourably with other parts of Ireland, contrary to popular belief. Brian Walker contributes a lucid and fascinating account of registration agents and their activities in party organization in Ulster from 1865 until 1892, a most important period for party re-alignment.

Surprisingly, since Professor McCracken is primarily a political historian, the rest of the contributions (about two thirds in all) are by members of a group of mostly younger social and economic historians whose work has begun to alter some of the familiar outlines of modern Irish history. "Vile hard reading" some of it is, too, complete with tables of census returns, hearth money returns, rise and fall of rents, determinable lettings, import and export (and not least) marital status of female household heads by religion. W. Macafee and V. Morgan tackle the problem of population in Ulster 1660-1760. G. Kirkham "Economic Diversification in a Marginal Economy". Peter Roebuck (who edits the volume) "Rent Movement, Proprietorial Incomes and Agricultural Development, 1730-1830". A. C. Hepburn and B. Collins examine the industrial structure of Belfast in the first year of the twentieth century, and D. S. Johnson looks at the interesting question of "Partition and Cross-Border Trade in the 1920s". W. H. Crawford brings enthusiasm and unrivalled expertise to his study of the evolution of Ulster towns, leaving the industrial villages to the curator of the Ulster-American Folk Park at Omagh. The only geographer, Desmond McCourt, writes about the decline of the "rundale" system of agriculture. The Rev. John Brown adds a biographical appreciation of Professor McCracken, and Donald McCracken a bibliography of his father's writings.

I imagine that most or all of the younger economic historians above mentioned would readily acknowledge a debt to the pioneer work of Professor L. M. Cullen of Trinity College. His latest book *The Emergence of Modern Ireland 1600-1900* seems by its title to promise an attempt at a comprehensive history of the island, but it is in fact a textbook perhaps? but such is its purpose. Instead he takes the scalpel or the butterfly net to a whole series of interesting problems, showing us from the vantage of his special knowledge and research that they are not simple problems, and that in Ireland especially they are not always what they appear to be on the surface. He darts here and there in pursuit of his own interests, admitting that some of his incursions were unintended, and the conclusions unexpected. They are all the better for that. The continuing historical controversy about landlord and tenant (the landlords are currently the goodies), the inevitable tension between settler and indigenous (himself perhaps an earlier settler), the sectarian element in the rising and of the famine in Irish history, social structure and cultural change - these are his themes. If something has been swept under the carpet, his curiosity will haul it out again for close inspection. Diet is not beyond the range of his interest, and the *droit de seigneur*. Did it exist in eighteenth-century Ireland? The title of one chapter, "Hospitality and Men's", might have been chosen by Lévi-Strauss.

How refreshing it is to find an Irish historian who begins a chapter with the sentence, "The character of the '98 rebellion has always presented difficulties." Would that it were exactly true!

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BOOKS

Viennese whirls

Logical Positivism
by Oswald Hanfling
Blackwell, £14.00 and £5.50
ISBN 0 631 10861 0 and 12853 0
Essential Readings in Logical Positivism
edited by Oswald Hanfling
Blackwell, £5.95
ISBN 0 631 12566 3

The creation of a school of men with scientific training and philosophical interests unhampered by the traditions of the past, wrote Bertrand Russell, is the one and only condition which is necessary in order to secure an achievement surpassing all that has hitherto been accomplished by philosophers.

Rudolf Carnap, a leading logical empiricist, says in his autobiography that he felt as if this appeal of Russell had been directed to him personally. Armed with the new logic of Russell and Whitehead's *Principia Mathematica*, and inspired by a vision of Einstein, in his special theory of relativity, as having advanced actual scientific knowledge by that elimination of metaphysics that they favoured, members of the Vienna Circle - a group of scientists, mathematicians, logicians and philosophers, gathered round Moritz Schlick - set about the task of making philosophy scientific.

Wittgenstein's *Tractatus*, in their view, had already gone a long way towards exposing how much previous work in philosophy was rooted in the misuse of language and the violation of logic. Important contributions were being made to mathematics and to the theory of probability by members of the circle themselves. And North, organizer of projects and of exercises, believed that the work of the circle would be politically progressive, too.

But things did not work out as they had hoped. Wittgenstein, when contact was established with him, proved totally out of sympathy with the spirit of scientific enlightenment that inspired many of the circle's members (though he remained an important influence, notably on Wittmann and Schlick). And others who were in sympathy with that spirit - notably Popper - advanced damaging criticisms of some of their most central doctrines. With the coming to power of the Nazis, the circle was physically dispersed, and the various projects gradually came to an end. His *International Encyclopedia of Unified Science* eventually contained, as part of its second and final volume, Thomas Kuhn's *Structure of Scientific Revolutions*, a work that has been the vehicle for the destruction of the concept of scientific knowledge.

In Britain the logical positivism or logical empiricism of the Vienna Circle became known principally through A. J. Ayer's writings. But he did not share the scientific background or the technical interests of the Vienna Circle itself. Nor does Oswald Hanfling's monograph, *Viennese Whirls*, presents and discusses the views of logical positivists on such matters as verification, the foundations of knowledge, metaphysics, ethics and the unity of science. His discussion is straightforward and quite full, and is well complemented by a large volume of readings, to which he has provided an introductory and might therefore be difficult to follow (and a bit of an obscure specialism practised in a few scattered places to one of the standard components of the map of learning. Lyons's point of view is highly ideological - more so, perhaps, than he realizes. For him, human languages, while differing from one another in detail, are in essence systems of equal subtlety, their important properties being fore-ordained by human nature and by the view of languages as cultural products, created and improved by processes akin

to those which operate in the evolution of legal systems, structures of economic relationships, and the like. Lyons says, are no simpler than mature languages, and at one point he suggests that while languages can die out it makes no sense to speak of them as being born. The obvious reply is that a circle is a new-born language, and that many "proper languages" may well descend from creoles (in a footnote Lyons argues rather oddly that creoles are irrelevant). Some recent research suggests that even mature languages can usefully be regarded as differing in structural complexity, and work on comparative colour terminology has abundantly confirmed W. E. Gladstone's 120-year-old speculation that the complexity of vocabulary in this area correlates with level of civilization (as measured by degree of division of labour, for instance).

One consequence of Lyons's Chomskian view of languages as essentially products of nature rather than culture is a readiness to see facts where someone else might see only values. Lyons discusses the "etymological fallacy" - the view that the true meaning of a word must be its original meaning. But to call this a fallacy seems as inappropriate as it would be to call etymology a fallacy. To insist on the *mutual* would be as quixotic as pledging allegiance to Prince Rupert of Bavaria, but in neither case does the notion of "correct" or "incorrect" arise. Linguists such as William Labov have suggested that to ask speakers to introspect about what is grammatical in their language is to elicit value-judgments in the guise of facts, but Lyons sees this as scarcely a real difficulty: introspection is a perfectly reliable guide to much of the structure of any language, he believes, and "One must not make too much, therefore, of... methodological problems".

The tide of intellectual fashion in linguistics seems nowadays to be turning against the positions Lyons represents. His book is a well-informed, judicious guide to the range of assumptions which have dominated the subject during its years of unparalleled growth.

Jeremy Shearmur

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Speaking naturally

Language and Linguistics: an Introduction
by John Lyons
Cambridge University Press, £15.00 and £4.50
ISBN 0 521 23034 9 and 29775 3

Lyons presents this book as a first-year textbook, complete with lists of further readings, problems, and discussion topics for each chapter, covering the whole of an introductory university course in linguistics: not merely the "core" areas (phonetics, grammar, semantics) but also historical linguistics, psycholinguistics, sociolinguistics, and so on. To do all this in 350 pages is a remarkably ambitious aim, and all the more so when the attempt is made by a single author.

No shame, then, if it doesn't come off. I do not believe that this book could be used successfully in the way its author intends: for instance, no student could answer a question such as "Give a broad phonetic transcription of your own versions of... anguish, bailing, brother-in-law..." on the basis of a twelve-page discussion of phonetics which mentions no vowels other than the cardinals and alludes to the term "diphthong" only in a brief footnote (while on the other hand it draws a distinction between voiced and voiceless glottal fricatives). Not only does Lyons betray lack of expertise in some areas, but he consistently approaches each topic from the most general, philosophical angle and only later moves to the concrete and particular (when he does so at all). In my experience of teaching beginners, the opposite strategy is appropriate.

Nevertheless, the book is an interesting survey of the entire discipline of linguistics, as seen by the man who has unquestionably had more influence than any other individual in guiding its growth in this country over the last fifteen years or so from an obscure specialism practised in a few scattered places to one of the standard components of the map of learning. Lyons's point of view is highly ideological - more so, perhaps, than he realizes. For him, human languages, while differing from one another in detail, are in essence systems of equal subtlety, their important properties being fore-ordained by human nature and by the view of languages as cultural products, created and improved by processes akin

to those which operate in the evolution of legal systems, structures of economic relationships, and the like. Lyons says, are no simpler than mature languages, and at one point he suggests that while languages can die out it makes no sense to speak of them as being born. The obvious reply is that a circle is a new-born language, and that many "proper languages" may well descend from creoles (in a footnote Lyons argues rather oddly that creoles are irrelevant). Some recent research suggests that even mature languages can usefully be regarded as differing in structural complexity, and work on comparative colour terminology has abundantly confirmed W. E. Gladstone's 120-year-old speculation that the complexity of vocabulary in this area correlates with level of civilization (as measured by degree of division of labour, for instance).

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Geoffrey Sampson

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Language in the novel

Style in Fiction: a Linguistic Introduction to English Fictional Prose
by Geoffrey N. Leech and Michael H. Short
Longman, £12.50
ISBN 0 582 29102 X

Some twelve years after Professor Leech's valuable *A Linguistic Guide to English Poetry* comes this volume on English fictional prose.

The new subject is in some ways less amenable to linguistic treatment: the phenomena to be considered are found in less concentration, and they are often less obtrusive. Perhaps because of this there are far fewer of those "Examples for Discussion" at the ends of chapters, which formed so useful a feature of the previous books.

For similar reasons, doubtless, the time-honoured, largely Renaissance, terms appropriate to poetry (pleonasm, onomatopoeia), discussed with many modern insights in the former volume, have been replaced by words appropriate to longer texts (not necessarily wider contexts): such as *metonymy*, for the inseparability of style and content, and *dualism* and *pluralism* for the term *pragmatics*, applied to "the contextual conditions governing the speaker's choice of utterance"; it is found, naturally enough, in collocation with rhetoric. A related term is *implicature*, from the philosopher H. P. Grice, used for the "extra meanings" that are

inferred by the listener, and accounting for the gap between overt sense and pragmatic force. In general the authors follow Leo Spitzer, though not necessarily to his extreme statement that the smallest detail of language can unlock the "soul" of a literary work.

In her biography of her husband, the grammarian Joseph Wright, Elizabeth Mary Wright tells us that the grammarian's motto was Goethe's couplet:

Nur das Beispiel führt zum Licht,
Vieles Reden thut es nicht.

She obligingly translates this as "Example only leads to enlightenment: much talking does not achieve it". The motto is amply borne out by this volume; for when, in contrast to retelling the varied terminology of different experts in interpretative linguistics, the authors address themselves to the close examination of, for example, paragraphs from Conrad, Lawrence and Henry James the effect, given their acute, both illuminating and indicates their methods. This particular comparison is as enlightening in its way as Ian Watt's notable explication of the opening of *The Ambassadors*, rightly mentioned in this book as a pioneering essay in the field. But by the end of this chapter we are reduced to considering lengthy tables showing the relative frequency of parts of speech in the three passages - the kind of statistics that Beachcomber parodied in his projected anthology of Huntingdonshire cabbidgers' telephone numbers.

A large part of the latter half of the book is devoted to that rather fashionable subject, the language of conversation in novels. The reader will not expect the happy empiricism of Norman Page's admirable *Speech in the English Novel* (a book in the same series); the authors' method is deductive rather than inductive, and (in theory at least) categorizing rather than individually appreciative. Nevertheless, he may find that the extra insights given by what the authors call "pragmatics" are worth the struggle with terminology and the baffling diagrams.

On first glance, Grice's four maxims of conversation (of quantity, quality, relation and manner) seem to have strayed from an elegant book written by a Victorian with bent for philosophy; but they prove to be not so much hortatory as illuminating. They may provide a useful key for discussing discrepant irony in questions and answers such as "Don't you feel anything for him?" with the reply "This is a war". Grice's estimation, there is a violation here of the maxim of relation - the answer is not immediately relevant - and also of the maxim of quality - saying that which is false. The quotation is from John le Carré's *The Spy who Came in from the Cold*, and there is no official war, but the implication is that with the victims of espionage sympathy is inappropriate; and in this latter sense the maxim of relation is ultimately observed.

There is some use in this terminology; but one has an uneasy recollection of Thurber's Miss Groby, who sent her English class chasing figures of speech, till her bright pupil James Thurber discovered a new one - the "Thing contained for the Container, with the single example "She hit him with the milk". One is not sure whether all this brand new terminology will be as useful as it seems to be exciting.

K. C. Philipps

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Professor F. R. Palmer's *Semantics*, which first appeared in 1976, is now published in a second edition by Cambridge University Press at £12.50 and £4.50. The author's revision takes account of developments in the subject since 1976 - theoretical advances and important publications - including John Lyons's two-volume *Semantics* (1977). For this edition Professor Palmer has also written a new chapter on "Semantics and Logic" which explains the influence of logical models on the study of meaning. The book retains its aim, however, of being an introductory outline to the subject, intelligible to the non-specialist. It concludes with the forecast that there can be no "massive breakthrough" in the subject.

Comrie observes that Russian has taken very few words from the other languages of the USSR. If he is right this is paradoxical, as Russian has taken, and still continues to take, a number of words from European languages outside its own borders.

Comrie's book is a fascinating survey of a complex linguistic pattern. It is to be hoped that it will be available and studied for some time to come.

Russian Babel

The Languages of the Soviet Union
by Bernard Comrie
Cambridge University Press, £27.50 and £8.50
ISBN 0 521 23230 9 and 29877 6

The USSR contains one of the most complex collections of languages in the world today. Within the country's borders live more than 260 million people of whom only half are ethnic Russians. The other half may be divided again into two approximately equal parts. One part consists of the Ukrainians and Belorussians each speaking their own Slavonic language, while the final 25 per cent embraces nationalities and groups speaking more than 100 languages, some of which did not acquire a written form until this century.

Within this mix the Russian language occupies a position which is unique in that not only is it the native tongue of the largest single ethnic group but is also the official state language and fulfils the role of a lingua franca within the USSR. Yet, while the Russian language is *primus inter pares*, most of the other languages both survive and develop.

Bernard Comrie has turned his attention to this intricate linguistic situation and produced a major study which will deserve the attention of scholars for years to come. His is the most important detailed survey and analysis in English to have appeared for some years. The major study in Russian, edited by Vinogradov, appeared in the 1960s. W. K. Matthews' *Languages of the USSR* was published 30 years ago and Lewis's book on *Multilingualism in the Soviet Union* came out nearly 10 years ago. The advantage of Comrie's study is that he starts from the points reached in earlier studies and advances in a manner that will satisfy the specialist and yet provide the general reader with an authentic and reliable guide.

This is not to say that all his conclusions will be uncritically accepted. There are, and will continue to be, disputes about the classification of the five main language groups - Indo-European, Uralic, Altaic, Caucasian, Paleosiberian (Paleoasiatic) - on which Comrie bases his study, as there are disputes about the actual number of languages extant in the USSR.

Census data released in 1980 showed that 153.5 million people (58 per cent of the total population) claim Russian to be their native language while only 137.4 million are ethnic Russians. Compared with the census results of 1970, the 1979 figures seem to indicate that the use of the Russian language is spreading rapidly, as 61.3 million non-Russians claim fluent command of it as a second language. No definitions are available of what is meant by "native" language or fluency and these figures must be treated with due caution, especially as the census was conducted during one of the coldest winters on record. The Soviet data lacks a precise analysis of who are the non-ethnic Russians claiming fluency in Russian. Are they urban dwellers rather than rural? Are they the well-educated strata who can use the language to travel and work in different categories of the USSR? And are they mainly the younger generation and not the older?

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Comrie's book is a fascinating survey of a complex linguistic pattern. It is to be hoped that it will be available and studied for some time to come.

B. P. Pockney

B. P. Pockney is director of Russian studies in the department of linguistic and international studies at the University of Surrey.

BOOKS

Pointing morals

Essays on Moral Development
volume one:
The Philosophy of Moral
Development: moral stages and the
idea of justice
by Lawrence Kohlberg
Harper & Row, £14.25
ISBN 0 06 064760 4

For almost two decades now the psychological investigation of morality has been dominated by the work of Lawrence Kohlberg. More recently his influence has extended, with even greater effect, into the field of moral education. Of the three disciplines his theories embrace, only moral philosophy has so far failed to feel his impact. So it is both desirable and courageous that this first volume of his long-announced collected papers, first announced in 1969, should be concerned with the philosophical aspects of his position. But it is, alas, no book for the philosophically-minded. By any standards it is both remarkably confusing, and remarkably confused.

The nub of Kohlberg's theory is his claim for a universal and invariant sequence of six developmental stages of moral reasoning. Its philosophical relevance is the assertion that the final stage, stage six - here identified with the reasoning appropriate to the "original position" as devised by Kohlberg's Harvard colleague John Rawls - is superior to all others, both psychologically and morally. This superiority consists in the fact that it represents a proper understanding of the distinctive nature of morality, and so provides solutions to moral problems on which all rational creatures can agree. Unfortunately, however, all that Kohlberg actually argues is that the results of stage six reasoning will be acceptable to all those who share its assumptions, which is of course equally true of any other form of reasoning, no matter how bizarre or inadequate.

Another of the book's dominant themes is the issue of value relativism. Kohlberg's opening chapter makes a number of claims to the effect that individuals and societies all share the same basic moral values; it then produces arguments and evidence which, properly understood, lead to show the very opposite. It may be true, as Kohlberg insists, that different moralities are nevertheless concerned with the same issues: rights and duties, character and consequence, life and death, truth and justice. Indeed I suspect that this is guaranteed by the very definition of "morality". It may also be true that the same styles of moral thinking can be found in different individuals and different societies. But it remains possible, indeed it is an explicit consequence of Kohlberg's own theory, that different individuals may use similar styles of reasoning - let alone those using different styles of reasoning - and yet come to different conclusions about the same issues, and so uphold different values.

Indeed at the end of a later chapter of relativism Kohlberg himself concludes that there are differences in fundamental moral principles between individuals or between groups. True, at the bottom of the same page he also writes "my evidence supports the following conclusion(s): There is a universal set of moral principles held by people in various cultures...". But this is not quite the contradiction it seems. What Kohlberg means is that there are some principles which are applied universally by those few who hold them, not that there are principles which are universally held; properly understood this claim too seems to support relativism more than it challenges it. By the time that a clearly relativistic statement by Drier is quoted as an example of "modified or methodological non-relativism", one begins to wonder whether Kohlberg has any idea of what relativism, or its opposite, might be.

There are times, moreover, when one suspects something more sinister than simple confusion. Kohlberg asserts, for example, that Rawls's theory, and therefore by implication Kohlberg's also, successfully describes "the method and substantive principles used in the considered moral judgments of all human beings in any culture" - but with the qualification that it describes the judgments only of those who have completed the developmental sequence and reached the highest stage of moral reasoning, which, we are told, represents less than 5 per cent of adult Americans! But we are not told, contrary to an earlier assertion, that in many other countries the figure is nil. And to make matters worse, many pages earlier and again several pages later we are given the more recent position, that so far there is no firm empirical evidence that anyone, anywhere, has reached that point. Now that's what I call a qualification!

It would take a work of equal size to detail the confusions and errors of this disastrous collection - disastrous because I happen to believe that Kohlberg's researches have opened up a range of important issues of which both philosophers and psychologists have been largely unaware. But those wanting to get to grips with these fascinating problems would be best advised not to start, or finish, here, but to try instead some simple introduction to Kohlbergian theory and techniques, such as Herish, Paolitto and Reimer's *Promoting Moral Growth*.

Don Locke

Don Locke is professor of philosophy at the University of Warwick.

Let that be a lesson

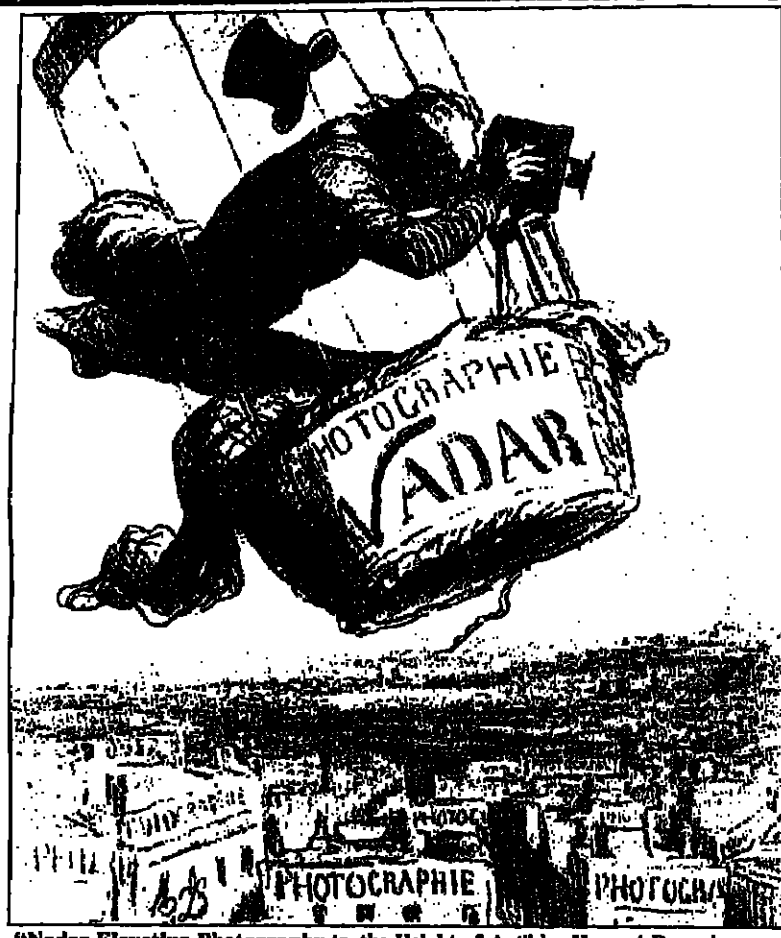
Plato on Punishment
by Mary Margaret MacKenzie
University of California Press, £17.25
ISBN 0 520 04169 0
Punishment: a philosophical and
criminological inquiry
by Philip Bean
Martin Robertson, £12.50
ISBN 0 85520 391 9

In the *Iliad* there is no punishment, and there are no conceptions of crime, criminality, or moral responsibility, as we understand them. There are simply injuries and affronts, and reactions to injuries and affronts, and even to describe the latter as revenge would be to attribute to them a penalizing character which is quite out of place in Homeric society.

Three centuries later, in the dialogues of Plato, not only is there punishment, there is also full-blooded penology. The theories that seem attractive to us as justifications of punishment - theories of social utility or, increasingly in their latest revival, retributivist theories - are considered and rejected. Instead, Plato has Socrates defending punishment on the basis that it is a benefit to the criminal, that it is a means of retrieving his soul from the wretchedness of its disposition to crime and fitting it for the knowledge and practice of virtue.

This is a massive transition in thought and values, and of immense importance even now to our self-understanding. In *Plato on Punishment*, Mary Margaret MacKenzie traces the development of penal ways of thinking from Homer to Plato, and presents us with a full and lucid exposition of Plato's philosophy of punishment.

The idea that punishment is a benefit to the criminal, and that the bad man who goes unpunished is for that reason worse off, is an exciting and interesting one because it meets the demand for justification head-on. Punishment is usually thought to be in need of justification because it hurts - that is, because it harms the people being punished. Utilitarian theories of deterrence and prevention acknowledge the harm, but argue that it can be outweighed by other benefits accruing to society. By contrast, the Platonic theory denies the real harmfulness of punishment, and sets out to show how the de-



"Nadar Elevating Photography to the Height of Art" by Honoré Daumier.

mand for a justification can be rebutted rather than satisfied. Even where questions of deterrence are taken into account (for example, in Plato's discussion of "incurable" criminals), the "benefit" theory gives it a slightly different emphasis. The value of deterrence is found primarily in the benefits that accrue to potential offenders rather than potential victims of crime. The usual worries about the justice of deterrence - about scapegoats and severity - remain, but they are seen now in subtly different light.

Such a "benefit" theory of punishment presupposes a particular approach to moral psychology (one that emphasizes dispositions to action rather than actions themselves), and, beyond that, a particular philosophy of ethics. For example, the enterprise of showing that punishment was a good to the wicked man would fall apart if it could not be established that everyone has a reason to desire virtue. MacKenzie's discussion of Plato's moral theory is interesting in its own right, but it is distinguished also by an awareness of the importance of every detail for the theory of punishment. The result is that she presents the moral theory as actually determining a certain penology, not just as a philosophical background to it.

In general, it is a virtue of *Plato on Punishment* that it holds together so well: Dr MacKenzie has managed to weld her account of the transition from Homeric to Platonic thought, her interpretation of Plato's penology and of his broader ethical theory, and her own critical reflections on crime, punishment and responsibility into a single work that is bound to be of considerable interest to anyone concerned with any of these subjects.

The idea that an offender can benefit from being punished is likely to be of particular importance in our treatment of juveniles. This aspect of penology is the special concern of Philip Bean's book, *Punishment*. Bean suggests that, on the whole, philosophers of punishment have either ignored questions about punishing children or have pushed them to one side. Public opinion, then, has had even less guidance than usual from moral philosophy in this area.

It would be too easy, however, to blame the philosophers for the acknowledged failure of society's efforts to reduce the level of juvenile crime - too easy to say, for instance, that the failure stems from the contradictory motives of retribution and deterrence which guide legislators and magistrates in this area. In an extremely well-argued passage, Bean shows that the two motives are necessarily inseparable. A program of punishment-as-reform simply will not work unless it is perceived by offenders as, in some sense, "fair"; and a child's sense of fairness is based on considerations of desert,

Far beyond the fringe

Daumier
by Roger Passeron
Phaidon, £45.00
ISBN 0 7148 2119 5

Anyone who has seen the whimsical little send-up of the present government now playing at the Whitehall Theatre will soon realize just how emaciated contemporary satire really is. These comedians are a long way from satirists of the stature of Daumier who had the ability to make governments tremble. Indeed, the history of western culture over the past two centuries has been record of the gradual diminishment of the power of the artist (let alone the artist) to effect political or social change. Yet it there not today every bit as much need for this kind of intervention? Where, then, are the satirists?

Daumier's power of course, derived from his scarcely rivalled ability to balance witty human observation with serious pictorial invention. His phenomenal industry (he produced some 5000 prints and 300 canvases) was primarily directed towards revealing mankind's vulnerability, both to self-deception and deception by others. Thus, revealingly, some of his most important paintings were devoted to the theme of *Don Quixote*, that supreme self-deceiver. Likewise, the bourgeois propensity for ignoring the ugly realities of life was also the subject of a great many of his best prints.

Roger Passeron writes with conviction about these larger dimensions of Daumier's art. He reminds us that he was "a first-rate artist, one of the greatest draughtsmen of all times, a painter and sculptor of genius". Above all, he was an artist who passionately lived out his conviction that "One must belong to one's own time". In doing so he revealed truths about human nature that are timeless.

Daumier's life fell into distinct phases, governed by political exigencies. He first came to fame by mercilessly satirizing the government of Louis-Philippe. This phase climaxed with his imprisonment for depicting Louis as *Gargantua*, a monstrous imber of court favours. The period came to an end with the passing of legislation severely curtailing the freedom of the press. Thereafter Daumier turned his attention to "the human comedy", attacking sycophants, lawyers and landlords, or gently mocking the blue-stockings, gossipers and "worthy bourgeois". Only did he fall of Louis-Philippe in 1848 did he return to politics. As Passeron points out, his enforced absence from political comment had not been an entirely bad thing for it had widened his range. Privately he painted the poets, literary and theatrical subjects, and in these pictures he produced some of his most original images, works that influenced Manet, Degas and Picasso among others.

After 1848, despite the attempts of Napoleon III again to curb press freedom, Daumier achieved a more equal balance between political and human comment. The tragic events of 1870, in particular, called from him some of his most powerful works. All of this is surveyed in great detail by Passeron, who also usefully appends a chart of the chronology of Daumier's most important works of prints. Though he adopts a very subjective mode of addressing the reader throughout, he serves his subject well.

Anyone interested in political history should carefully examine Daumier's work. All art students should be forced to look at him. The total vacuousness and disengagement of contemporary tradition offers them little future challenge. By exploring the direction opened up by observers such as Daumier, we could yet again bring high art back into the realm of human affairs.

Eric Shanes

Eric Shanes's latest book is "The Genius of the Royal Academy".

BOOKS

COMPUTER SCIENCE

Language standards

Programming Language
Standardization
edited by J. D. Hill and B. L. Meek
Else Horwood: Wiley, £18.50
ISBN 0 8312 188 5

The Definition of Programming
Languages
by Andrew C. McGettrick
Cambridge University Press,
£13.50 and £6.25
ISBN 0 521 22631 7 and 29585 8

"Do you mean what you say, or say what you mean?" When programming a computer it is very important that you should do both, since the computer will assume that you mean what you say (however foolish that may be), and if you don't say what you mean the answers that come out are likely to be so much waste paper. Thus, there is a need for precise definition of the languages we use to communicate with our computers.

In the early days the problem didn't arise, because there were no programming languages as we know them. One addressed the computer in its own terms, using whatever notation it was constructed to accept. Even when the early programming languages were developed, nobody saw a problem in defining the meaning of the language: the meaning of a program was defined by what the machine actually did when presented with that program. However, as the development of the new languages widened the field of possible programmers to include scientists, and as the machines became more powerful, the problem became acute.

Since it is an international activity, it is important that a FORTRAN program written at the Lawrence Livermore Laboratory, say, should mean the same when run on a computer at CERN. In commerce, too, the desire to avoid re-inventing the wheel on every occasion, and to need to use programs on different machines led to the same concern. I need to define programming languages so that different programmers as well as different machines should agree on the meaning of any given piece of program text.

Initially national or international standards were developed, and the established mechanisms that exist for this purpose. And it is this that Hill and Meek address in their book, the first chapter of which contains an invaluable account of the evolution of the mysterious standardization process. An understanding of the political and social aspects of the standardization process is essential to the understanding of the way in which a particular standardization effort has progressed.

Contributions then cover the history of the standardization of most of the common languages, each now having been chosen for his particular processes: for FORTRAN, COBOL, Algol 60, PL/I, BASIC and others. Further chapters follow on more general standardization areas: systems languages, database languages, control languages, howevers, and decision tables. A useful chapter describes the proposed British standard for a meta-language, a language for describing the syntax of languages.

The remaining third of the book is devoted to a "discussion" of the issues involved in standardization. The book is presented as a "panel" of "speakers". As the editors note, however, it is "an imaginary discussion" of a discussion which might have taken place had we all been together in the same place at the same time. Although it is certainly a tour-de-force of creative writing, it is not, as the editor's introduction says, "a book that has not attributed

opinions to the participants that they do not hold. I am still unhappy with the way it has been done. However, this criticism does not detract from a superb book that will become one of the classics of the programming literature.

A point that does not emerge in many of the discussions of language standardization is that the task of programming language is exceedingly difficult. The first FORTRAN standard was a substantial document, yet it immediately gave rise to a corpus of literature of even greater size explaining and interpreting what the standard actually meant. The problem is that most of the standards are written in English, and although it has long been recognized that English is an excellent language for political speeches, poetry, love stories and cricket commentaries, it is not precise enough to be used as a programming language. It should therefore come as no surprise that it was not precise enough for language standards either.

A few academics had recognized this fact early on, and had set to work on devising methods for the precise definition of languages at the semantic level. (The problem of precise syntactic definition had been solved when Algol 60 was developed.) This research was reported in papers and books of such impenetrable mathematical obscurity that the rest of us dismissed it as a subject that we could never hope to understand, let alone teach. Andrew McGettrick deserves great praise for presenting it as a subject of clarity and intellectual excitement.

After a very brief introduction and a chapter on theoretical foundations (which will be familiar to any final-year honours student of computer science), he devotes two chapters to early attempts at definition, bringing

out the problems involved. Most of the material is, however, covered at greater length by Hill and Meek. Four chapters then cover the principal methods of formal definition so far developed. Chapter five on PL/I outlines "abstract machine" definitions developed by IBM. One of these led to the PL/I standard, one of the few standards based on a formal definition. The second, more abstract, approach led to the development of the "Vienna definition language" and the PL/I definition affectionately known within IBM as the "Vienna telephone directory".

The next chapter uses Pascal as a peg on which to hang attribute grammars and Hoare's axiomatic method. Chapter seven, "The revised Algol 68 report", introduces W-grammars, thus enabling the reader to grapple with that infamous report (a document of immense obscurity, using many typefaces of which it is said, only partly in jest, that it requires the reader to distinguish between italic and Roman full-stops). Finally, chapter eight describes the Scott-Strachey method of denotational semantics.

McGettrick's book will be useful as a text for a final-year honours course; it covers a great deal of ground at just the right level. Though not so obviously geared to a specific course, Hill and Meek's book should not be dismissed for that reason, as it could be used as a basis for seminar work and class discussions. Both books are required reading for anyone seriously interested in programming languages, and I can highly recommend them.

David Barron

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Self-study COBOL

COBOL Workbook: a self-study introduction to the COBOL programming language
by Andrew Parkin
Edward Arnold, £2.95
ISBN 0 7131 3438 0

In this brief but concise self-study introduction to the COBOL programming language, the author has managed to avoid unnecessary verbiage regarding the four COBOL divisions. In it he describes the core elements of the language rather than programming techniques and methodologies. However, both language and programming methodologies can be introduced without explicit definition; there is no need to talk of "structured programming" as such, since this can be introduced to the reader by carefully chosen examples.

At the technical level of good programming practice I was, generally speaking, disappointed. Particular sources of disquiet were the unnecessary use of GOTOs and the handling of indexed variables: for example, out of approximately 20 statements within a procedure division of a program presented, there are five GOTO statements.

The material is centred on five "concept charts" or diagrams, which can be understood in terms of definitions of the core elements of the language with the interconnecting arrows involving words such as "create", "code", "refer", for example, compiler creates the object program; object program is coded in machine code; and index may be referred to in a "set-up-by" statement.

Although he may be rather puzzled by the charts at first sight the reader should soon become accustomed to traversing through the arrows and tracing the concept he is looking for. This latter process is in fact more difficult than understanding the concepts themselves. Though lacking clarity, the charts do contain a wealth of information.

The book contains 109 quiz questions, some answered by the author and some left to the reader. You may find this approach appealing but I do sometimes wonder how many readers ever fill in the blanks in quiz books.

Appendix A contains some very useful notes on less frequently used features of COBOL, including file status, rerun, exception procedure on, use after standard exception procedure; and Appendix B contains a full list of minimum ANS COBOL general statement formats.

It is its rather novel teaching technique using detailed diagrams rich in definitions, that single this book out from others on the language.

E. J. Yannakoudakis

E. J. Yannakoudakis is lecturer in computer science at the University of Bradford.

If you knew Ada

The Programming Language Ada Reference Manual: proposed standard document, US Department of Defense
edited by G. Goos and A. Hartmann
Springer, DM 16.50
ISBN 3 540 10693 6
Ada: an introduction, including Ada reference manual
by Henry Ledgard
Springer, DM 29.80
ISBN 3 540 90568 5
The Ada Programming Language: a guide for programmers
by L. C. Pyle
Prentice-Hall, £8.95
ISBN 0 13 003921 7

The Ada programming language is now beginning to make its mark on the computing community. The language was designed for the US Department of Defense by a team led by Dr Jean Ichbiah in Paris, consisting mainly of Europeans. It is named after Augusta Ada Byron, Countess of Lovelace, widely regarded as the first programmer because of her work for Charles Babbage.

A programming language needs to be simple and coherent and yet meet the needs of the application programmer. As the Department of Defense specified the comprehensive initial requirements, this has inevitably led to a language which some academics have said is too complex.



Painting of Augusta Ada Byron, Countess of Lovelace, by Margaret Carpenter.

Another ten years of research might settle the question, but in the meantime Ada is designed to replace languages like Coral 66, RTL2, and JOVIAL but it could easily compete with Pascal, FORTRAN, Algol 60, Algol 68 and even PL/I. The real test of the language will be from 1983 onwards when compilers and software written in Ada become widely available.

The reference manual is the official definition of the language. As such, it is a compromise between an accurate definition and a programmer's manual. Though substantially shorter than that for COBOL and yet more accurate, it largely fulfils these dual objectives. As teaching Ada is the largest cost in introducing the new language, and as new concepts such as prenotations and metanotions in Algol 68, sometimes overwhelm students it is important that the manual and textbooks should be clear and precise. Ada, for example, has the "rendezvous" concept for synchronization, but uses existing words with a special meaning. Whereas the manual is very careful in its use of such words, the textbooks of Ledgard and Pyle confuse the conventional and technical meanings.

Ledgard's brief introduction is easy to read and well produced, but fails to cover the language in any depth. The book does, however, include a reprint of the reference manual. Pyle's textbook attempts to cover the language at the level required by most programmers. To produce such a book in advance of compilers (for checking examples) and before obtaining practical experience in the use of the language, is a very difficult task. Though twice the size of Ledgard's introduction, it does not provide complete coverage. Production, from camera-ready typescript, is not to the same standard as Ledgard's book.

Will it be possible to teach Ada to large numbers of programmers? Here the critical issue is the novelty

inherent in Ada's features, of which settle the question, but in the meantime Ada is designed to replace languages like Coral 66, RTL2, and JOVIAL but it could easily compete with Pascal, FORTRAN, Algol 60, Algol 68 and even PL/I. The real test of the language will be from 1983 onwards when compilers and software written in Ada become widely available.

The most important single feature of Ada is that of the package, the major advance in its case being the separation of the specification of a package from its implementation. The specification can be partly checked by a compiler before the implementation is produced and the completed package can be checked for consistency. Indeed, I can envisage a whole software industry based upon Ada packages. Neither book is satisfactory, because they rely too heavily upon the manual itself and because the examples often do not demonstrate the best use of Ada.

Will the language prove to be too big? I do not think so, although as one of the language designers, my view is naturally biased. The reason is that many aspects of Ada will only be of concern to a minority of programmers, such as tasks (for concurrency), real types (for approximate computation) and low-level features. Another major criticism is that of its military origin, but there is no cruise missile lurking in the appendix to the manual (and COBOL has a similar background). In Britain, its use in the civil area is likely to be just as important.

B. A. Wichmann

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BOOKS

COMPUTER SCIENCE

FORTRAN update

Programming with FORTRAN 77
by J. Ashcroft, R. H. Eldridge, R. W. Paulson and G. A. Wilson
Granada, £5.95
ISBN 0 246 11573 4

Following the traditional pattern, we start this FORTRAN text with "simple" things like assignments and arithmetic expressions, and then work our way up through conditionals, loops and arrays to functions and subroutines.

The authors, all from the mathematics department at Salford University, do this using real and integer data types only (apart from including text strings in outputs). Character and the other data types, file handling and items such as computed GOTO, are then dealt with in the final chapters. There are examples and exercises, mostly mathematical in nature to suit the traditional hard core of FORTRAN users in science and engineering - but no solutions. Useful appendices include one comparing FORTRAN 77 with its predecessor, 1966 ANSI standard FORTRAN.

The authors refer to a "widely accepted version of the language... called FORTRAN IV which is based on the '(1965)' standard but which includes extra facilities", as if there were only one such; a curious statement but, like the references to "silicon" chips, only a minor blemish.

Description of language features is precise, and I have not detected any inaccuracies. The style is straightforward and clear, though almost entirely devoid of any individuality. It is difficult to tell whether this is by design, has just come naturally, is an effect of multiple authorship, or is the result of the zombie-like state that anyone is likely to reach after teaching too many introductory FORTRAN courses. However, for the many readers who dislike any hint of personality in their scientific textbooks, this will be no bad thing.

It may seem, therefore, that this book meets its stated design aim, which is "to teach a person with little or no knowledge of computing how to write FORTRAN 77 programs". Unfortunately, I cannot agree that it does. Anyone with "little or no knowledge of computing" will need a great deal more than this book tells him. It will tell him little or nothing, for example, about how to tackle a programming problem, how to design a program, or many other aspects of good style and practice. Even that traditional design aid of the FORTRAN programmer, the flow chart, is missing.

Admittedly, conditionals are introduced with the FORTRAN 77 "block IF" as the standard construct, and GOTO is introduced as a means of exit from a loop on a condition other than the loop variable reaching its limit. A one-sentence warning about the need for care in using GOTO is, however, not enough, especially for the increasing number whose "little knowledge of computing" includes BASIC on a microcomputer. Testing and verification are mentioned only briefly, and subprograms are dealt with in terms of function and subroutine libraries, or being called more than once in the same program, but not as a general means of building programs.

Although there are a few warnings about some of the more dangerous features of FORTRAN, they are nothing like sufficient. Programming in FORTRAN without knowledge of these is like walking through a minefield without a mine detector. I am aware that there is a school of thought which says you should not make people nervous by too many warnings about dangers, but millions of man-hours of FORTRAN programming (and subsequent debugging) have shown this approach to be inadequate.

As for production, printing is in a uniform spaced type (desirable for

FORTAN), right-justified and so presumably from text processor output. The text is easy to read, layout is good, and programs and outputs are well presented. However, the binding does not look as if it would stand up well to the rigours of a beginners' course.

Nevertheless, there is a market for a book as clearly written as this, even if it is not the one intended. Competent programmers who do not need the detailed advice on program design of other introductory texts will find it is a good guide to the main features of FORTRAN 77, although those used to the relative security of superior languages may still be caught by traps of unfamiliar kinds. And experienced FORTRAN programmers converting to the new standard, who might get irritated at being told by other books how to design programs (even if they do actually need the advice), may welcome a text which presents the language features but does little more.

For beginners in computing, however, Balfour and Marwick is much to be preferred, and Meissner and Organick is a good alternative (for review, see *The TES*, October 31, 1980).

Brian Meek

Brian Meek is director of the computer unit of Queen Elizabeth College, London.

Applying basic principles

Microprocessor Fundamentals
by Fred Halsall and Paul Lister
Pitman, £5.75
ISBN 0 273 01522 2

Basic Principles and Practice of Microprocessors
by D. S. Heffer, G. A. King and D. Keith
Edward Arnold, £5.95
ISBN 0 7131 3426 7

To produce a text giving thorough grounding in the understanding of modern microprocessor-based systems and their use is a daunting task for anyone, particularly since there is a large range of outwardly similar but inwardly dissimilar products available in the market place forming the collective microprocessor and support chip components used to build today's microcomputer. An introduction is therefore limited, if it is to be in a single volume, to a brief description of a number of building blocks obtainable from a range of manufacturers or to a more thorough description based on a single manufacturer's product.

One would expect a book on the subject of microprocessors to limit itself to the latter case and this Halsall and Lister do, further limiting themselves for the greater part to a well illustrated description of one product, the Intel 8085. As their prime aim is to provide an understanding of the instruction set of that processor, their offering would be better titled *An Introduction to the Intel 8085 and Some Applications*. Also, much emphasis is placed on the time-consuming habit of hand-coding the instruction set.

Heffer, King and Keith concern themselves (though briefly) with a wide range of processors, notably the Rockwell 6802, the Intel 8080/85 and the Zilog Z80, together with some of the associated support chips. Emphasis is placed more on the method of connecting the various processor and support chips together by illustrating principles in a practical manner, although much weight is rightly placed on an understanding of the instruction sets and the electrical control lines. I trust, however, that their actual systems have less bugs than some of the printed tables in their book.

Halsall and Lister's book should enable students to gain a sound knowledge of the principles involved in operating the Intel 8085, through worked examples and exercises.

Input/output is well described, with worked examples giving details of the basic eight-bit parallel I/O; and there is a careful study of the handshake control lines permitting the microprocessor systems to converse with its peripherals.

Analogue-to-digital and digital-to-analogue conversion and interfacing are well covered, including many practical methods of sampling. Although this is very commendable for such a small book, the praise is offset by the total lack of any serial I/O description, a serious omission as most modern peripherals are provided with serial I/O capability. Interrupt handling, though amply illustrated, is again limited to the features available with the 8085. The Z80, with its wider instruction set and better interrupt handling, might have given students a broader introduction to microprocessors.

A particular feature of the book is the chapter on specific applications - traffic light sequencer, washing machine controller, digital clock, waveform generator, and temperature controller - all of which are well presented.

Heffer, King and Keith do not assume any previous computing experience but do assume some basic understanding of digital electronics, assumptions borne out by a text amply illustrated with block diagrams, pin-outs, flow charts, and software examples. Some might, however, be too complex for the beginner.

In general, the book covers a lot of ground and, given its size, with a surprising amount of detail. As this has inevitably led to a general lack of flow between chapters, students would do well to return to selected chapters according to need. An additional text covering the instructions set for the processor of their choice, also be required. This is not a criticism as the authors do enable students to select a microprocessor of their own choice.

The software aspects of microprocessors are illustrated by choosing specific instructions and examining them in detail to obtain the principles of operation. The software handling of I/O support chips is also well illustrated with various manufacturer products being used for both parallel and serial data I/O. Hand-shaking is adequately described but with few examples. While asynchronous serial I/O is dealt with quite thoroughly, no mention is made of synchronous serial I/O; in particular the Intel 8251 USART is not mentioned. No examples of analogue-to-digital or digital-to-analogue conversion are given, a serious lack, particularly as many modern interfaces have analogue characteristics.

I found as many as five errors in the ASCII character table. As such tables tend to be used for reference purposes, some confusion will result. A very basic and sound introduction to number systems is given which would not be amiss in many other books on computing. Much unnecessary emphasis is placed on hand coding. Assemblers are briefly described.

The discussion of hardware throughout the book is clear. The problems of bus arbitration and address decoding logic are briefly but well described, and the different forms of memory device well explained.

P. J. Verrier

P. J. Verrier is head of the microprocessor systems section, computer department, Rothamsted Experimental Station, Harpenden.

History of Programming Languages contains the proceedings of the ACM SIGPLAN History of Programming Languages Conference, held in Los Angeles on June 1-3, 1978. Through formal papers and transcripts of talks and discussions, the book presents a record of the early history of the thirteen major languages used in modern programming practice. Key technical people directly involved in the early development of each language describe the factors that influenced the processes of design. The whole, which has been edited by Richard L. Wexelblatt and published by Academic Press at £25.50, may "provide users of these languages with a better understanding of the reasons for the structure and idiosyncrasies in the languages they are using".

BOOKS

COMPUTER SCIENCE

Essential Pascal

Pascal: the language and its implementation
edited by D. W. Barron
Wiley, £12.50
ISBN 0 471 27835 1

In March 1977, a conference held at Southampton University brought together those active in developing Pascal. This book contains the proceedings of that conference, and also reports other relevant papers.

The first section of the book contains six chapters on the language itself. For example, Welsh, Sneering and Hoare provide an informed and unemotional critique of the language, as defined by the Pascal Revised Report. Their paper describes the difficulties of establishing whether two types are equivalent, discusses the problems encountered by one-pass compilers in implementing the Pascal scope rules, and outlines insecure features such as variant records and procedural/functional parameters.

Other difficulties are discussed by Andy Mickel in his paper on the future of Pascal. Four years ago the outlook had been less certain, and Mickel pointed out that, even though there had been a considerable increase in the use of the language, there was then no adequate defining document. However, the position has been improved by the advent of the British Standard for Pascal, approved last September.

The second section contains eight chapters on implementation. ETH Zurich have produced a compiler for the CDC 6000 series and one for a hypothetical stack machine (the

Pascal-P compiler). Two chapters by Urs Ammann discuss CDC 6000 implementation: the first provides an overall view of the design of the compiler and the second is concerned with the details of efficient code generation.

The success of Pascal has been due in part to the ease with which the source of a compiler can be obtained. In particular, Pascal-P has been readily available for a small handling charge and this has led to it being used for the implementation of Pascal on a variety of computers. To help those implementing Pascal-P on a new system, the Pascal-P implementation notes are reprinted in the book. These notes include the code generation patterns of the Pascal-P compiler, details about the hypothetical stack computer and its assembly language, and brief details of three implementation strategies.

A paper by Jim Welsh compares the Mk 1 and Mk 2 ICL 1900 compilers; and David Watt and Bill Findlay describe how the special facilities of the 1900 can be implemented, providing examples of the sort of output that can be obtained.

ETH Zurich have now developed a compact Pascal system the size of which was reduced by handling only that subset being taught to students. Niklaus Wirth's report on the subset Pascal-S is included in the book. In it, he defines the subset and gives the internal details of a compiler-interpretor for the language. He concludes with 33 pages listing a compiler-interpretor program, the publication of which will be useful for those who wish to implement Pascal-S and for those who wish to study the internal workings of a compiler-interpretor for a reasonably large language.

Because the book has taken so long to be published, some of the material is a little dated. However, it does contain some essential reading for anyone wishing to understand an existing Pascal implementation.

Barry Cornelius

Barry Cornelius is a lecturer in computer studies at the University of Hull.

Chemical problems

Computational Chemistry: an introduction to numerical methods
by A. C. Morris
Wiley, £19.75 and £8.75
ISBN 0 471 27949 8 and 27950 1

The past decade has seen a remarkable growth in the use of computers for chemical applications. Most of this expansion has been concerned with microcomputers and, for the larger computational problems, interest continues to increase in the use of the mainframe computer.

This book is primarily concerned with introducing numerical methods, and showing how they may be applied to solve chemical problems, but in principle the numerical techniques described could be implemented on any computer system, from the powerful mainframe to the microcomputer used for on-line data processing.

The author has been largely successful in his aim of producing a text-book suitable for the undergraduate chemistry student. However, only the more mathematically able students will be able to appreciate the content fully, despite the claim made in the preface that only a basic knowledge of algebra and calculus is required.

The book is well organized, with three introductory chapters concerned with problem formulation and, in principle, followed by five chapters each concentrating on one type of numerical method. These chapters do have a similar internal organization: an introduction to the numerical method itself is followed by exercises illustrating chemical applications. Each of these exercises has an introductory section to remind the reader of the chemical principles involved. Many require either the writing of short programs in FORTRAN or the running of the FORTRAN program packages provided in the

appendix.

This raises an interesting point about the implied need for a prior knowledge of FORTRAN IV programming. The author, realizing that this could be a problem, claims that students who are unable to program in FORTRAN can complete those exercises for which programs are provided. This may well be an acceptable strategy, but if the book is to be used as part of a course in computational chemistry then a knowledge of FORTRAN IV ought to be a prerequisite.

The wide range of chemical applications introduced through the exercises, together with the relevant comments and answers that take up the last 30 pages or so, are strong points of the book. Many of these comments lead to the posing of further problems which the enthusiastic student can explore on his own, and such students will appreciate the substantial number of literature references.

One feature which detracts from the book is the failure to include a treatment of eigenvalue problems. The author justifies this by his emphasis on experimental applications. The point is valid but the omission reduces the usefulness of the book for students of theoretical chemistry. Perhaps one has to draw the line somewhere to keep the book to a manageable length, but it does seem a pity not to have included even a short section on the topic, bearing in mind that matrix methods are introduced for the solution of linear simultaneous equations.

Despite this omission, the book represents good value for money, and any postgraduate student involved in the computer processing of experimental data should regard it as compulsory reading. At the undergraduate level, students undertaking project work involving the numerical processing of experimental data, or those taking computational physical chemistry as a special topic course, should find the book very useful.

Keith Miller

Keith Miller is lecturer in physical sciences at Wolverhampton Polytechnic.

Graph theory

Graphs, Networks and Algorithms
by M. N. S. Swamy and K. Thulasiraman
Wiley, £30.70
ISBN 0 471 03503 3

The authors' stated aim is "to discuss in a unified manner the theory of graphs, its application to the study of electrical networks, and the theory underlying several graph algorithms"; they envisage the book as a graduate course text reasonably accessible to students of mathematics, electrical engineering or computer science. The book has three clearly defined sections: an introduction to graph theory, and specialized treatments of electrical network theory and of algorithmic analysis and optimization.

There are several excellent textbooks of graph theory - my own favourite is still Harary's classic of 1969 - so another introductory treatment needs to be good to justify its place on the bookshelf. Swamy and Thulasiraman's treatment has several merits, beginning with the fact that it is clearly written and well organized. The book is quite long: part one alone is somewhat longer than Harary without covering quite as much ground in mainstream graph theory, illustrating the eternal problem for the author of a textbook - shall I try to be encyclopaedic, or shall I cover a limited but coherent selection of important material? These authors have chosen a quite reasonable compromise: the greater part of their text is selective, but each chapter ends with a rapid survey of further material and a long list of references.

Certain areas have been neglected totally, even in the surveys. For example, the following words do not appear in the index: automorphism, enumeration, line graph, spectrum, eigenvalue, and characteristic polynomial. This first part is, however, particularly strong on a vector-space and matrix theory of graphs which provides a foundation for network analysis in the second part. The coverage also reveals how fast the subject is developing; even in the introductory part, 45 per cent of the references are post-1970, and in the parts dealing with applications the proportion increases to 68 per cent.

The section on electrical network theory begins logically but proceeds fairly rapidly to recent material on multipoint networks and sensitivity analysis. To an electrical engineer, it seems to be very definitely a graph-theorist's idea of network analysis; the classic, but now rather old book by Seshu and Reed, and combines graph theory with a more authentic flavour of electrical engineering. But there is no doubt that Swamy and Thulasiraman's treatment is authoritative in its own way, and I would guess that this is one of their favourite topics.

Part three, on algorithmic graph theory, discusses many topics which come naturally under that heading: algorithms for establishing connectivity properties, shortest paths, network flows, and so on. It also touches on what might be called "graphical algorithmic theory", that is, using graphical methods to investigate topics such as searching, matching, code optimization and program structure. As this part is perhaps even more selective than the others, I would not recommend it on its own as a treatise on graph algorithms or on algorithms in general. However, it is consistently sound and interesting; as a first course on algorithmic applications for a student of graph theory, it is well grounded.

The authors have written a clear and well organized text on graph theory, which does not quite capture the flavour of its two areas of application, but which will be valuable to readers who, knowing the applications, wish to enlarge their understanding of graph theory.

Kenneth W. Cattermole

Kenneth W. Cattermole is professor of electrical engineering at the University of Essex.

New Books from Macdonald & Evans

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Colleges and Institutes of Technology



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Honours graduate in Mechanical Engineering with qualifications or experience in Plant with secondary interest in Dynamics or Control, or Mechanics of Materials to develop aspects of Offshore Engineering. Plant and project management experience advantageous. Salary range: £6894-£11,985 per annum. Assistance with removal expenses. Details from: Secretary, Robert Gordon's Institute of Technology, Schoolhill, Aberdeen AB9 1FR. (0224-574511)

Colleges of Further Education

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at the
ROYAL NATIONAL COLLEGE FOR THE BLIND
Hereford
Lecturer I/II

Required to help in the introduction of these courses at the college and in particular to teach the core module "People and Communications". Experience in Teaching on B.E.C. or similar courses is essential. Instruction on specialised techniques required for the visually handicapped is available within the college. R.N.C. is the only College of Further Education for the visually handicapped in the country. It is mainly residential and has 200 blind and partially sighted students.

Please apply in writing, with full curriculum vitae and the names of two referees, to the Principal, Lance Marshall, M.A., Royal National College for the Blind, College Road, Hereford HR1 1EB, from whom further particulars may be obtained (tel 0432 65725).

BOURNEMOUTH AND POOLE COLLEGE OF FURTHER EDUCATION

Head of Department of Craft Engineering (Grade IV)

Applications are invited for the above post to take up duties on 1 September 1982.

The Department offers a range of courses to full and part-time students in Automobile Engineering, Welding and Fabrication, and Mechanical and Electrical Craft Studies.

Applicants should be Chartered Engineers with substantial teaching experience, proven organizational and administrative ability and shall have demonstrated an active interest in curriculum development.

Salary: Head of Department Grade IV £12,783 - £14,331 p.a. Further details and application forms available from Principal's Secretary, North Road, Parkstone, Poole. Tel 0202/747600. Completed forms to be returned within 2 weeks of the date of this advertisement.

LONDON

THE JACK COLLEGE
The College proposes to make an appointment to a part-time Lecturer in the Department of Design. Salary will be according to qualifications and experience. Applications with C.V., copies of publications, and the names of three referees, to: The Principal, Jack College, 100, Strand, London, W1A 2JF. By 15th December 1981.

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Applications are invited for the year beginning October 1982. Further details are available from the Secretary, Department of German Studies.

BRADFORD UNIVERSITY OF M.A. IN PEACE STUDIES

Applications are invited from suitable qualified candidates for this one year course commencing in January 1982. The syllabus covers the study of areas of conflict, armaments control, war and disarmament, processes of social change and non-violent social movements, international relations, conflict, problems of industrial societies, philosophy of peace. The School of Peace Studies is the only University department in the United Kingdom that offers a fully accredited M.A. in Peace Studies with peace and its related issues.

Applications from those wishing to pursue a programme of research will also be considered.

Further information and application forms from: Postgraduate Admissions Tutor, School of Peace Studies, University of Bradford, Bradford, West Yorkshire BD7 1DP. H31

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Applications are invited for this challenging post in a dynamic, polytechnic-style institution. The Administrative Officer is responsible for administrative procedures associated with the academic planning of the College and the implementation of the policies of the Academic Board. The postholder will have day to day responsibility for the work of the Academic Secretariat Office. The post offers considerable scope for a person with proven ability and a creative approach to educational administration.

Applicants should have experience of committee work and higher education, together with communication skills of a high order. Salary: £6,200 - £7,187.

Application forms and further details from: The Personnel Office, Hull College of Higher Education, Ingcliffe Avenue, Hull HU8 7UL. Tel. (0482) 448008.

Closing date for receipt of completed applications is 14th December 1981.

Hull College of Higher Education

NEWCASTLE UPON TYNE UNIVERSITY OF ADMINISTRATIVE MANAGEMENT OFFICE

Applications are invited for an appointment as an Administrative Assistant in the Statistical Services Unit. Candidates should be graduates or equivalent qualifications, with previous experience in statistical services. Duties will cover day to day administrative assistance at the Statistical Services Unit, including preparation of statistical reports, and assistance with the Statistical Services Unit. Salary will be according to experience and qualifications. Applications with C.V. and three referees to: The Principal, Newcastle University, Newcastle upon Tyne NE1 7RU. By 15th December 1981.

Further information and application forms are available from: The Personnel Office, Newcastle University, Newcastle upon Tyne NE1 7RU. By 15th December 1981.

Research Posts

BRADFORD UNIVERSITY OF MANAGEMENT CENTRE RESEARCH FELLOWSHIP

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Applications are invited for a two year fixed-term SSRC funded Research Fellowship commencing 1 January 1982 to work closely with Dr R. Butler on the project: "Voluntary and Charitable Organizations as alternatives to Public Organizations". Applicants with doctoral or other appropriate qualifications in the field of business studies, organizational analysis, sociology, public administration, economics, experience in the administration of voluntary organizations are encouraged. Salary within range £5,074 to £10,515 per annum, according to experience and qualifications.

Further particulars and application forms (with a returned copy) obtainable from the Registrar and Secretary, Post Box 110, Bradford BD7 1DY.

OXFORD UNIVERSITY OF DELEGACY OF LOCAL AUTHORITY

The Delegation of Local Authority Research Officer
The Delegation of Local Authority Research Officer is a post of research officer, which will be available early in 1982.

The salary will be on the Oxford University Lecturers' scale which at present runs from £6,800 to £13,735, the starting point for the successful applicant, who will be expected to be a senior research officer, with a minimum of 5 years' experience in research, and a minimum of 3 years' experience in the field of local government. Full particulars, and the form of application, which must be returned by 8 January 1982, may be obtained from the Secretary of Local Authorities, Oxford, OX2 7JG (Tel. 5425 Ext. 39).

Overseas

UNIVERSITY OF CAPE TOWN

SENIOR LECTURER IN RELIGIOUS STUDIES

Applications are invited for the above post, vacant as from 1st January 1982. Appointment, according to qualifications and experience, will be made on the salary scale R14,370 to R20,850 per annum. In addition, a service bonus of nearly one month's salary is payable annually.

Preference will be given to candidates whose special interest lies in Christian studies, particularly theological method and hermeneutics. Competence in the teaching of religion and ethics, will be an advantage. Applicants should submit a curriculum vitae, stating present salary, research interests and publications, experience, when available if appointed, and the names and addresses of three referees.

Information sheet concerning the position and general conditions of service should be obtained from the Registrar, (Attention: Appointments Office), University of Cape Town, Rondebosch, 7700, by 15th January 1982. Applications (quoting ref. no. E/11) must be received not later than 15th January 1982.

The University's policy is not to discriminate in the appointment of staff on the grounds of sex, race or religion. Further information on the implementation of this policy is obtainable from the Registrar.

TEFL OVERSEAS

American University of Beirut in Lebanon anticipates openings in its French-Sophomore English Communications Skills program starting in October 1982. M.A. (or equivalent) in TEFL required, with experience in the teaching of English to foreign students. Opportunity for materials development and research in language acquisition, bi-lingualism, and sociolinguistics. Send curriculum vitae, resumes, and letters of recommendation to: Chairman, English Department, American University of Beirut, Beirut, Lebanon or care of: American University of Beirut, New York Office, 380 Madison Avenue, New York, NY 10017. An affirmative action/equal opportunity employer.

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Applications are invited from suitably qualified candidates with expertise in microwave equipment and components and familiarity with instrumentation. Some experience in radar fundamentals and/or applications would be welcome.

The successful candidate will join the Microwave Systems Research Group which is active in various aspects of microwave telecommunication systems, satellite and terrestrial communication systems and related instrumentation. The post is expected to lead to higher qualifications and research. The initial salary will be £8,403.00 per annum. The post is advertised and the initial contract will be for two years.

Application forms from the Staff Office, Alexander House, Portsmouth Polytechnic, Portsmouth, Hants. Further details from Dr R. V. Jones, Department of Electronic Engineering, Portsmouth Polytechnic, Portsmouth, Hants. Tel. 0705 52111, ext. 165, quoting Ref 1181.

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Applications are invited for researchers to work on projects within the following fields of study:
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Salary: £5034 to £5685. Details and application forms, returning a completed form, may be obtained from the Staff Office, Wolverhampton Polytechnic, Wolverhampton (WV6) 9PT (enquiries).

Overseas continued

BIRZEIT UNIVERSITY
P.O. Box 14, Birzeit. Phone (95) 2428

Birzeit University, an independent Arab university in the Israeli-occupied West Bank of Jordan, invites applications for faculty appointments for the academic year 1982/1983.

The University has the following academic programmes:

- Faculty of Arts
Arabic Language and Literature, Archaeology, Cultural Studies (Western and Middle Eastern Civilization), Education and Psychology, English Language (Communication Skills, Teaching of English as a Foreign Language), English Literature, History and Middle East Studies, Library Science, Philosophy, Physical Education, Social Work, Sociology and Anthropology.
- Faculty of Commerce and Economics
Accounting, Business Administration, Economics.
- Faculty of Engineering:
Civil, Electrical and Mechanical Engineering.
- Faculty of Science:
Biology and Biochemistry, Chemistry, Mathematics, Physics, General Science.

English is the basic language of instruction. Candidates should have a Ph.D. Degree or a Masters Degree with experience. Starting annual salary for faculty members with a Ph.D. Degree is 4010 Jordan Dinars - approximately 6000 Sterling for the Faculty of Engineering; 5522 J.D. - 3775 Sterling (for Engineering); 3315 J.D. - 5000 Sterling. Higher salaries are offered depending on experience. Fringe benefits include a ticket and relocation allowance for new faculty members, accident and health insurance, cost of living coverage. The University is a co-educational institution with an enrolment of about 1800 students; it is located in the town of Birzeit 26 Km. (16 miles) north of Jerusalem.

Interested candidates are requested to send resume to the Dean of the Faculty concerned at the following address:-

Birzeit University
Birzeit
West Bank - Via Israel

NATIONAL UNIVERSITY OF SINGAPORE
Centre for Postgraduate Education Studies & Research

Applications are invited for appointment to the post of **DIRECTOR OF THE CENTRE**

for Postgraduate Education Studies and Research. The Centre will be responsible for the development and implementation of postgraduate education studies and research. The Centre will also be responsible for the development and implementation of postgraduate education studies and research. The Centre will also be responsible for the development and implementation of postgraduate education studies and research.

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Information sheet concerning the position and general conditions of service should be obtained from the Registrar, (Attention: Appointments Office), National University of Singapore, Kent Ridge, Singapore 119070, by 15th January 1982. Applications (quoting ref. no. E/11) must be received not later than 15th January 1982.

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FACULTY POSITIONS
Spring & Fall 1982

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Engineers and Computer Scientists to teach courses and to develop curriculum in upper-division engineering technology and computer science programs. Salary: mid-twentieth. Qualifications: Ph.D. or Master's with appropriate industrial/academic experience.

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Applications for the above post are invited from graduates in any one of the following social sciences:

Anthropology, Comparative African Government, Development Administration, Geography, Political Science, Psychology, Sociology, or Economics.

Applicants should preferably have either a postgraduate qualification that has been awarded on the basis of a completed research project, or a proven record of research, backed up by academic publications, together with a keen interest in the field of Development Studies.

Application forms, further particulars of the post and information on pension, medical aid, group insurance, staff benefits, leave, housing, long leave conditions and travelling expenses on first appointment are obtainable from the Secretary, South African Universities Office, Chubb Court, 278 High Road, WCVI 7HE or The Registrar, University of Natal, King George V Avenue, Durban, 4001. South African citizens whose applications on the prescribed form, must be lodged not later than 16th January 1982, quoting the reference number D13301.

MACAU THE OPEN COLLEGE

ACADEMIC APPOINTMENTS

An Open College is being established in Macau, with the co-operation of other educational institutions. The college will offer a wide range of courses leading to the degree of the University of Macau. The college will offer a wide range of courses leading to the degree of the University of Macau.

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Don's diary

Saturday

I have two well-tryed cures for jet-lag: one is to sleep and the other is not to sleep. For a 31-hour day sleep is the better method and this is always helped by the in-flight movie. Is one ever offered something worth watching? The Pan-Am hostesses are really trying to please. Did they have a pre-flight briefing? "Right, this may be your last flight as the firm is nearly bankrupt and the fares barely cover the cost of fuel".

Mexico City airport has an average of four family and friends waiting for every person who arrives by plane. The chaos and crush from three jumbos coming in within a few minutes of each other needs no elaboration. There is no green-red customs system and we are all presumed guilty unless proved otherwise. Luckily my frantic waving of a British passport at a tired customs officer extracts a friendly "pass along".

Sunday

Down early to breakfast feeling it is lunchtime. Remember to order huevos (eggs) a la mexicana rather than huevos mexicanos, which my guidebook tells me is rather rude. I can justify a day of relaxation because I should be suffering from altitude sickness as well as jet lag - actually feel quite good. I head for the place where all the locals are supposed to go on a Sunday - Chapultepec Park. It is everything I have read about: a people's park without notice saying "Don't". Food and drink stalls are everywhere and although I know it is asking for trouble I fall to the temptation of a thick slice of pineapple. A notice says: "This way for Aztec Yoga lessons". Feeling that one morning is unlikely to be sufficient to reach Nirvana, I pass on to the open-air skill centre. Here I have a wide choice of crafts (woodcarving, doll-making, knitting, etc) or I could learn to play the guitar or mend a TV or cut my wife's hair. However, all of these take time so I join the English language class. The whole atmosphere of eager learners elates me and I think, why was Battersea Park never like this?

Monday

Collected by my host and driven to the Universidad Nacional Autonoma de Mexico. With 150,000 students and a campus about the size of Worthing it is a bit different from home. It has the Olympic stadium and other grand edifices. My host works in the Instituto de Fisica which is over on the quiet side about two miles from the centre of student activity. I suggest that this is a bit inconvenient for teaching, but they apparently do not do much of that: there is a sharp division between teachers and researchers. They point out the advantages of keeping one's research far from a frequently "revolving" student body, but one small cause for discontent might be that the professors are not often seen. We get down to scientific matters, the reason for my trip, and that is the same, the whole world over.

Tuesday

I insist on taking the bus from my hotel, which is in the centre of the city, to the campus about ten miles away. This saves my host a very unpleasant two hours of traffic jams but my main reason is that it is such a bargain - only three pesos (5p). There is quite a lot of skill involved in getting on a bus and I am not prepared to follow the young men who seem quite content to have just one foot on the platform as the bus sets off. After ten minutes' detailed study of traffic flow I work out the optimum place for bus jumping (the concept of a well-defined stopping place has only limited relevance in a Mexican traffic jam) and get myself a seat.

Scientific discussion continues and

we are joined by a young postgraduate student who is doing all the computing for our project. I am told that he is of pure Indian stock and his father is head man in an inaccessible village in the Sierra Madre. What can his family think of his chosen research topic, quantum mechanics? Why did he not choose something "useful" like medicine or agriculture? There are many questions like this that I would have liked to ask, but our only common language is Fortran.

Wednesday

I should not be here. Back home senate is having its first discussion of the GRIPE proposals for reshaping the university. I can easily imagine the passionate speeches from provincial chancellors, the president of the Association of University Teachers and student representatives. I wonder what sort of GRIPE report could be written for the Universidad Nacional? Well, they could combine the Institute of Chemistry and the School of Chemistry for a start. But Mexico does not need a GRIPE because it is an expanding economy. Unlike Britain it has an educational policy and not just a monetary policy.

Thursday

Start the day by taking breakfast with the British Council. I am told that breakfast meetings are a Mexican tradition and there is enough variety in our hotel's buffet to make a good start to the day. I am unashamedly a British Council supporter and always look them up on these foreign trips, even when they are not my sponsors. I invariably get the impression of lively people doing a good job for the British educational and cultural scene. I exchange views on Mexican universities with the scientific attaché and put in a good word for the student I am working with. How would he face to life in England I wonder? I have brought plenty of literature about our postgraduate courses and seek British Council help in distributing it to the right places; five overseas students equals one academic job. Catch a bus to the university where I give a midday seminar.

Friday

A bus trip out to Cuernavaca which is about fifty miles Mexico City. It has the reputation of having the world's best climate and lives up to it today. An off-shoot of the Instituto de Fisica has been established there and I would have expected a mad rush to migrate: certainly the birds have, for the trees in the Zocalo (central plaza) are teeming with them. A brief visit is made to the cathedral which has been beautifully restored in recent years. But what are those old buses doing in the foreground? A notice on the cathedral wall in English tells all: "Dear visitor, this cathedral has been occupied by the workers and farmers of Morelos province to being pressure on the government to release more land to the peasants (I thought local hero Emiliano Zapata did that in 1910). To improve water and electricity supplies in the villages and to increase the number of educational scholarships."

Back to Mexico City feeling cleansed by my day out. It is such a vibrant place. I am continually amazed by the ingenuity of the people to earn a few pesos. For example, the fellow who had a transistor radio on the pavement and was listening to the music by shaking a pair of man-cas. It also has many beautiful buildings and gardens. The big question is whether it can survive the automobile.

John Murrell

The author, is the dean of the school of chemistry and molecular sciences at the University of Sussex.

The father is a 64-year-old physicist, eminent in his field, for many years director of microwave and laser research at his university, and one-time collaborator of Charles Townes, who won the Nobel Prize for his research on lasers. He has many international contacts, great prestige in his country as a scholar and a teacher, and a warm and open personality. The son is a 28-year-old former economics student, now given to reading and meditating.

The father was dismissed from his professorship in 1979, his laboratory was closed down. He was arrested earlier this year for his persistent activities on behalf of human rights, though released after a week because of widespread pressure inside and outside his country. He has helped set up an institute where freedom of thought and teaching can thrive, and hopes that it may grow into an independent university.

The son was kidnapped by armed men after a medical examination for military service in October 1975 and has been in prison ever since, without charge or trial. He has been tortured repeatedly, given electric shocks, beaten on the genitals, left lying on the floor as those who passed kicked, spat and urinated on him. The story of the father is inseparable from that of the son. It brought him out of his ivory tower and made him into a determined fighter for human rights and academic freedom in his country, at escalating cost to himself and his professional career. Together, the two stories tell much about the state of things in Argentina today.

The son is Gustavo Westerkamp. In 1974, during Peron's regime, he was charged with "illegal association" but acquitted. But this very acquittal made him a prime target for the growing private enterprise among military and police. He was called up and, fearing the worst, was reluctant to sign up. Ironically, his father, reassured by a colonel friend, urged him to do so. Once at the barracks, he was blindfolded, beaten and forced into a waiting car and sent to prison. Now when he is transferred between prisons, he is brutally beaten. His father can visit him and talk to him through a tube. He says his son is "trying to preserve his spirit".

A recent United Nations study shows that Argentina alone accounts for over half the 13,000 "involuntary

Father and his son



Steven Lukes

disappearances" documented from 15 countries. Few hope the regime will investigate these or their perpetrators. As General Viola recently said, "A victorious army is not investigated." Now he is ill and neither of his likely successors seem set to take a different view, especially as the Reagan administration has given the green light to Argentina's authoritarianism, which it favours by contrast with left-wing totalitarianism. On the other hand, there survives a legal system with small pockets of independent life in it and a regime partially sensitive to opinion abroad. The outcome of Gustavo's story is not yet predictable.

The father is José Westerkamp. After his son's arrest he became active in the Permanent Assembly of Human Rights and in 1978 left it to found the Centre for Legal and Social Studies (CELS), a human rights group providing legal and technical assistance, especially to the families of political prisoners and the disappeared.

His response to his own treatment has been to found the Free Institute of Higher Studies, which occupies an old rented house in Buenos Aires, where some 40 people, including 10 former professors, teach courses to 400 students, including some brave

students from the official university. The teachers receive no pay; the students contribute what they can. All is open and above board. The institute allows free discussion on sensitive topics such as politics, psychology and feminism. Westerkamp's vision is to expand to set up a "free university", publishing its courses in the newspapers, and teaching what is banned from the official university. For this project he hopes for international support, both moral and financial.

José Westerkamp's story vividly illustrates the systematic suppression of scientific activities and academic life in Argentina. Since the coup, the state excludes students, professors and alumni from the administration of universities and appoints all rectors, presidents, deans and directors, many of whom are active or retired military officers. Many subjects of thousands of staff have been moved.

Professor Westerkamp describes the situation thus:

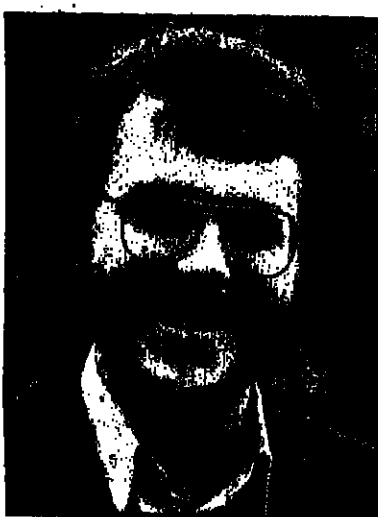
"In a word: the universities only carry their name. Fear is the only thing that predominates and makes the professors and teaching staff docile. The reprisals taken against certain faculties have completed their mission: to sow fear among those professors who remain, even if they can still think freely, and to strengthen the authoritarian aspect among those professors who are authoritarian by nature."

On the other hand, by contrast with the unofficial courses that still take place under threat and surveillance in Prague flats, it is in Argentina still possible to found an institute semi-publicly, to attract hundreds of students and to contemplate expanding into a "free university". The teachers are not forced into menial jobs to survive, nor are they repeatedly arrested and interrogated. There is still, it seems, some space for realizing academic freedom.

The stories of the father and the son illustrate in miniature aspects of both the oppression and the possibilities in Argentina today. But they also illustrate the vital urgency of outside interest in them. For without this, it is probable that José would be in prison and that Gustavo would have disappeared. If you want to see the son, please write to Amnesty International; if you want to support the father, and his free university, please write to me.

Science today

A cliché to fit the heart of the matter



Robin McKie

The search for clichés among science journalists anxiously seeking to explain the arcane world of particle physics has become almost as frenetic as that of nuclear physicists desperate for results or theories to account for their own mysterious world of sub-atomic science. The general theme includes phrases like "Chinese boxes" and "even dog-eared" - bigger fleas have little fleas.

Yet the progressive intervention of this language is not hard to understand given the momentum of physics to relentlessly peel back almost endless layers of particles, hidden

ever since it was shown that the atom was not an indivisible component of matter, a steady succession of these constituent units have been revealed by scientists.

First there was the nucleus and the electron; then protons and neutrons were found to make up the nucleus; and now quarks have become pretty well established as the components of both protons and neutrons. By this stage, quarks - bound in triplets inside their parent particles - are contained at such high energies that their existence can only be indirectly detected by scientists.

The evidence is so strong that it has led some scientists to infer hypothetical particles within these still hypothetical particles. At present, we know that matter in the everyday world can be explained through the existence and behaviour of four sub-atomic building blocks: two leptons - the electron and the neutrino - and two quarks, known as up and down quarks.

At higher energies other quarks come into play, and this has led physicists to propose a new type of particle which would be a constituent of both quarks and leptons, and would explain the structure and nature of all matter in the universe. Various forms of this theory exist, and in the words of Professor Ewan Squires of Durham University's mathematics department, there is now a strong swell of opinion among theoretical physicists towards the view that new component particles are the best explanation of quark behaviour. Although most do not subscribe to such a theory.

Various forms have been put forward but the most popular, has come from Haim Harari of the Weizmann Institute in Israel. He has suggested a new basic particle called the rishon, from the Hebrew for primary. According to him, there would be two forms of rishon - known as T and V rishons - and both would be massless. The T rishon would have a

basic charge of one-third and the other no charge.

The basic properties mean that three Ts would combine to form an electron; two Ts and a V to give an up quark; two Vs and one T to give a down quark; and three Vs to give a neutrino. The theory has the further advantage of proposing that the force which holds these rishons together is the one that produces the weak nuclear force, one of the four principal forces in nature which will have to be properly understood.

The theoretical objections which have to be overcome before rishon theory will one day be an acceptable quark theory, which took many years to gain credibility, are formidable. If they exist, rishons must be highly energetic, massless and bound tightly within quarks.

Given that massless particles, such as the photon, also move at velocities approaching that of light, this means a new synthesis of quantum mechanics and relativity must be reached.

Detecting the rishon is a long way off, although Professor Squires has suggested one possible indicator of their existence. When the next range of the world's great particle accelerators are built, including Europe's large electron-positron device, they will be used to detect the intermediate quark boson, an odd sounding particle predicted by Nobel prize winning Professor Abdus Salam and other scientists to account for the properties of nuclear force. If the properties of this particle, particularly its energy, are other than those precisely predicted by Salam and his colleagues, the first indirect hint of the rishon's existence will have been found, says Squires.

After that, it will no doubt be a short time before the next generation of theoretical physicists proposes some new even tinier particle within the rishon. And then the poor old back will be stuck again in a search for a new generation of clichés to explain them.

LETTERS TO THE EDITOR

The reform of the Royal College of Art

Sir, - Your piece on Lionel March's arrival as new rector at the Royal College of Art (THES, November 20) continues to suggest that the task is one of knocking an institution into shape. In fact it is much more complicated. The RCA is only one part of a whole ecological system, penetrated by most of the system's problems, which it can by no means solve on its own. These problems can be simply phrased as questions: What is our subject-matter? How do we teach it? What is to be our social values and what our social purpose? They are as fundamental as that.

Starting with subject-matter, from 1964 art and design education was divided into four categories: fine art, graphic design, three-dimensional design. This division lacks a prime role of taxonomy, and the terms should be of the same order. This jumble of dimension, technology, quality and description led right from the start to absurdities. In what sense was it useful (we might ask) to segregate two from three-dimensional design? Where in terms of this system can one logically place film, video, and tape-slide?

In 1969 Norman Potter proposed (What is a Designer, 1st Edition) three single categories: product design (things); environmental design (places); and communications design (messages). This gets rid of anomalous design being considered a sub-set of graphic design, rather than the opposite, but also points to a logic which ought to underlie our planning (for instance, the necessity for art and design and architecture to be part of the same system; the impossibility of communications design without the element of written and spoken language).

"Art" here might be work which came from the expressive end of the spectrum in each of these categories, rather than constituting a category of its own, unfortunately defined, as at present, in terms of a particular kind of product (painting, sculpture). This is my addition to Potter, who might well not agree with it.

Another set of problems, closely related, are concerned with the way

the subject-matter is taught, and the status of the courses. In our time art and design has been taught through activity and imitation. Its operations have been more akin to apprenticeship than to academic learning, and its theory has been implicit rather than explicit. When the sector moved to a degree-equivalent qualification (the Diploma in Art and Design, or Dip AD, which has now become a CNAA degree, a theoretical, academic study was felt to be a necessary component, and art history, with complementary studies, was bolted onto the courses. This was never been felt to be entirely relevant: in the first place it is difficult to decide if an ancillary study is relevant if you are unclear about the nature of the main study; in the second, art history, which grew up as an academic discipline in its own right, has no necessary community of spirit with doing and making courses, although it bears on some of their subject-matter.

Whether or not the importation of art history was responsible for this, the process of making the implicit explicit, identifying and stating the theory inherent in the practice, was generally not set going.

Whereas most postgraduate work in tertiary education is quite distant from undergraduate work, postgraduate work in art and design normally means continuation courses, that is, one, two or three years doing the same thing as before. On one hand art and design postgraduate study does not clarify, extend or criticize the theory of the discipline; on the other, the student is not led to crown apprenticeship with qualitatively different work leading to the masterpiece and acceptance as a master-craftsman. Thus the system and the individual fail to gain the benefits which could flow from the application of either educational model.

This bears heavily on the RCA, the sector's main (and exclusively) postgraduate work, and a powerful final problem is that of social purpose. Historically the art and design schools were set up to provide artisan-designers for industry, but

two further, and competing, aims emerged: to produce artists and teachers. The most serious problems arise from this last aim.

Although the sector is the main training ground for school art teachers, they are a by-product. In the past the flow of teachers has come mainly from fine art, and the art subject in the schools has been seen as predominantly self-expressive and cathartic rather than constructive or communicative. It has also tended to the development of the gifted few, rather than to the establishment of base-level skills for the broad majority of young people.

Naturally individuals have struggled against this, but the nature of their education, whose world-view is influenced by the sector's current mythology and lack of self-awareness, does not help them. The RCA, a large number of whose graduates teach at tertiary level, and therefore teach the teachers, has done little to remedy this. It is perhaps characteristic that Rhodes Boyson should miss the most serious points and attack the RCA where it can most easily be defended.

Looking finally at the RCA itself, it became "one of Europe's premier institutions" under Darwin only in a political sense. It achieved independent funding, prestige, and a powerful old-boy network. What it did not achieve is practical/intellectual pre-eminence. It will bear no serious comparison with the Central School at the turn of the century, with the Bauhaus, or the Design School at Ulm. It has in recent years had a connexion with the movement fostering design education in schools, but the other most important change in the sector, the development of communication courses, has occurred entirely outside the RCA and has passed it by.

I hope, probably not alone, that Professor March succeeds in changing the RCA, for which reason I think the difficulty of the task should be stated right at the outset.

Yours faithfully,
DAVID PAGE,
Faculty of art and design,
North East London Polytechnic.

Hodgkin's disease

Sir, - You have done my book *Curator of the Dead* the honour of a review by Charles Webster, director of the Wellcome Unit for the History of Medicine at Oxford University (THES, October 16). His criticisms are direct and mostly quite apt, though allusions to errors of fact (which doubtless there are) must surely be substantiated.

Particularly pertinent is Webster's observation of my neglect to delve sufficiently thoroughly into Thomas Hodgkin's work as a pathologist. The fact that Hodgkin's name endures in present-day medical usage rests on his descriptions of the gross morbid anatomy in six cases published in the *Medical Chirurgical Transactions* of 1832 (17, 68-114). Sir Samuel Wilkes introduced the term "Hodgkin's disease" after 1856, when he had documented a 36-case series in the initial belief that the condition he had identified had not been previously described. However, Sir Robert Carswell, the first professor of pathology at University College, London, produced immaculate illustrations of Fungus Haematoides in 1828, which appear in their pathological anatomy very much like the

condition now known as Hodgkin's disease. A seventh case is included in Hodgkin's paper of 1832, for which the details were furnished by Carswell. Hodgkin was quite tentative in his introduction where he deemed it likely that he was describing a condition already well-known to some. Evidently to Carswell for one.

Had providence designated the condition Carswell's disease (as well it might) Thomas Hodgkin would have become by now unknown to medicine, an exclusive preserve for historians, who doubtless apply an altogether different level of scholarship to their tasks. As it happens the name has become too well known to be left undisturbed until historians got around to it on their own terms.

Finally, I was by no means indifferent to the importance of the personal manuscripts to which Webster refers. I could not get enough of them. Nevertheless the task seemed well worth a try.

Yours faithfully,
Dr MICHAEL ROSE,
Consultant haematologist/senior lecturer, St George's Hospital Medical School.

Library research

Sir, - I am based in the department of library and information studies at Loughborough University and work at the Centre for Library and Information Management, which is funded by the British Library research and development department. We have been informed that the level of funds requested for a future proposal has been cut by 49 per cent from £110,000 to £56,000 per annum. Two experienced senior research staff have been told that their contracts will not be renewed. The professional staffing of the centre will fall by a third to four members.

A proportionate reduction in the staffing of the British Library research and development department which is the central focus for UK library and information research and development funding? Researchers in other fields and academic and teaching colleagues may like to consider and comment on the elimination of front-line research personnel from centres of proven productivity, as opposed to the possibility of steady state bureaucracy in Government departments and quangos.

Yours sincerely,
STEPHEN ROBERTS,
Research Fellow, Centre for Library and Information Management.

Linguistics' record

Sir, - As a linguist, I should like to support Professor N. V. Smith's plea (THES, November 12) for linguistics, a subject which is now threatened by spending cuts in several universities. Linguistics as a subject has a marvelous record of intellectual innovation.

However, I should like to point out that (apart from its applications to very important work in computation and artificial intelligence), linguistics is capable of yielding considerable insights into the nature of social and political problems, and is therefore also a practical and useful subject.

A branch known as sociolinguistics (which is itself to a great extent dependent on the theoretical basis that Professor Smith has described) has in recent years made considerable advances in understanding problems that arise, wholly or partly, from multilingualism and multilingualism. Our own large research projects in inner-city Belfast, which have studied the relation of language variation to social structure, have yielded (too late) insights into the social problems that may lead to civil unrest.

As Britain is now a multi-cultural and multi-lingual country and is threatened with violence and unrest, it would be unfortunate if we did not take what opportunities we could to understand the causes of these things. In that respect, language problems are much more important than most people realize, and the consequences of ignorance fall much nearer home.

Apart from this, linguistics is also relevant to communication problems in industry, law, planning, education (to name a few). To inflict serious damage on a subject so basic to the understanding of human behaviour is particularly short-sighted in these difficult times.

Sincerely,
JIM MILROY,
University of Sheffield.

Solution to the teacher shortage

Sir, - One could well imagine the wry smiles and sense of *déjà vu* of all those academic staff currently surviving in teacher education, and the understandable bitterness of those discarded by the wayside in the past decade of contraction, on reading "Teacher shortage forecast" (THES, November 20). There was an inevitability about it which had been long foreseen and it was simply the scale of the problem which was difficult to predict. The "trough" year of 1981/82 for the contracted system is now with us and we are on the threshold of the next cycle of expansion which will first be reflected in the increased demand for primary school teachers later in the decade.

It is, however, the proposed response to this demand, as advocated in the most recent paper prepared by the Department of Education and Science and submitted to Advisory Committee for the Supply and Education of Teachers last week which must generate the greatest surprise and concern. By basing its calculations on current output, at a time of a recruitment shortfall of some 40 per cent, the department suggests that the BED, even if turned entirely to primary training, could not meet the anticipated needs of the primary schools in the late 1980s and early 1990s. It therefore suggests that there must be a massive expansion of output of these teachers from the Postgraduate Certificate of Education courses.

No one would dispute that training provision must now reverse the so-called "balance of training" and put a major emphasis on the needs of the primary schools, nor that on current recruitment, the BED courses alone could not meet these needs. Were the national and institutional student targets for those to be filled, there would be little necessity to increase the proportion of newly-trained teachers emerging from the PGCE route. Few would dispute that the breadth of professional needs of primary teachers are better developed in the former concurrent training of the new BED courses than in the 30-36 weeks of the PGCE.

Recruitment to the former is now improving, and a determined publicity campaign by the DES, drawing attention to the anticipated prospects for employment of primary teachers, would ensure that targets were filled and the forecast shortage met from the most appropriate course. Perhaps it is that in a climate dominated by financial and logistical considerations, the one-year course provides Government with a more immediate control of the training system than that through the BED to the detriment of sound education practice.

Yours faithfully,
W. MIDDLEBROOK,
Department of education studies,
Trent Polytechnic.

New maths course

Sir, - My attention was drawn recently to your article, "Out of the mouths of babes" (THES, October 30) in which you quoted from the 1982/83 Leicester Polytechnic prospectus comments made by students on the BSc (Hons) mathematics course. What is not clear from the article is that these comments refer to the old degree course. The scheme was revised during 1980/81 after consultation with students and the concerns expressed in the prospectus were fully discussed by the board of studies. The revised scheme, which was approved by CNAA earlier this year and which started in September, is no longer semester-based and the volume of course work has been reduced allowing more time for private study and individual project work.

Your faithful,
Dr R. D. SFORT,
Course leader, BSc (Hons) maths,
Leicester Polytechnic.

Letters for publication should arrive by Tuesday morning. They should be as short as possible and written on one side of the paper. The editor reserves the right to cut or amend them if necessary.

Union view

Students are not a 'soft touch'

Newcastle University student union met last week to discuss whether or not it should continue to affiliate to the National Union of Students. Five minutes before the meeting was due to begin the large hall was already full. By the time it got underway there was somewhere between 1,500 and 2,000 students present.

The anti-NUS faction had been working hard, and their arguments were those that had been used so many times before: the money spent on NUS should be spent on clubs and societies; students had no muscle and therefore no need of a union; let's cheapen the pint of beer; and so on. With such materialistic pessimisms given the problems that students face, one might have expected the whole thing to be very difficult for NUS. But it wasn't.

The loudest cheer was for a pro-NUS speaker who said: "The anti-NUS people are wrong to believe that students simply want to be passive consumers of education - we want to be active participants." Newcastle asked to stay affiliated by a margin of 4:1.

With our national conference starting today, I think there is a lesson in all this to those that have come to see students as a "soft touch". Where student unions manage to engage the interest and the enthusiasm of their members, the response has been unexpectedly high.

At NUS we've been involved this last term in the most varied programme of meetings, representations and activities in our recent history. This time we've been given a major



boost by the vast improvement in our relationships with trades unions, nationally and at the institutional level, exemplified by our involvement in the Jobs for Youth campaign.

Despite the difficulties in getting across the implications of major expenditure cutbacks to people whose stay in a college is rarely longer than three years, students have been very much involved with campus unions in arguing and acting against the cuts. Five thousand of our members marched in Salford, 3,000 in Chelsea, and more in Scotland, Birmingham and Wales. Student unions have convened meetings of trade unions to agree strategy, have begun to draw up alternative plans, and have been instrumental in getting hawkish vice-chancellors and directors to back down the worst of their proposals.

Now, over grants, the government seems poised to make one of its biggest errors of judgment. For two years the Department of Education and Science has deliberately allowed the value of the student grant to erode.

The Government, cocooned in ignorance since it has refused to a student costs survey, is looking at the awards budget as a good place to find reductions in education spending. Rumours, not denied by the ministers, talk of an up to 4 per cent increase in the main rate and a substantial increase in parental contribution.

I think that the Government has calculated, wrongly, that there will not be substantial resistance by students and their parents, or that if there is such resistance that it will not gain public support.

Students with support from the public and the unions in the Education Alliance, will put up a big fight in 1982 to ensure that the education of the last 20 years is not lost. Readers of this paper will, I know, want to support us in this battle.

David Aaronovitch

The author is president of the National Union of Students.

N. H. J. C. 116